
AMERICA'S NASTIEST FAMILY FEUD • FACEBOOK'S NEW FOE
FEBRUARY 29 • 2016 EDITION
Forbes
BOX-OFFICE BILLIONAIRE
THOMAS TULL
"IT'S VERY HARD TO BUILD A NEW THING."
REV UP YOUR RETIREMENT
THE 10 SMARTEST MOVES
HOW TO CRACK YOUR NEST EGG
ROTHS FOR THE RICH
GAP YEAR FOR GROWN-UPS
REINVENTING THE BLOCKBUSTER
HOW LEGENDARY'S FOUNDER USED COMICS, CHINA AND A SECRET FORMULA TO REMAKE HOLLYWOOD.
AND HE'S ABOUT TO HIT A $3.5 BILLION JACKPOT.


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Forbes

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COVER PHOTOGRAPH BY ETHAN PINES FOR FORBES


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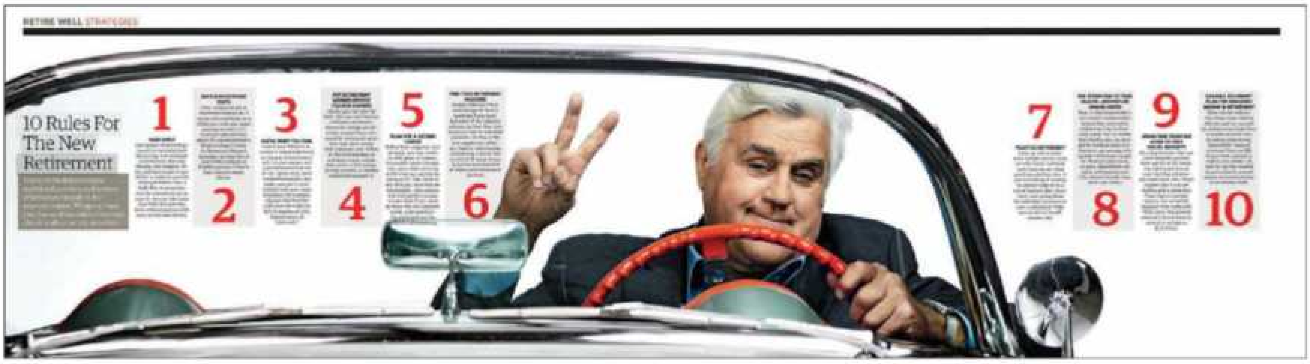
EBBS & FLOWS
DIVERSIFICATION



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INSIDE SCOOP

Business Lessons From *The Martian*

BY LEWIS D'VORKIN

I SHOULD HAVE KNOWN it was coming, especially in a newsroom full of quick-witted journalists. "So, about AdGate ... " That's how a staffer began her question during a recent meeting of digital editors. It was a pointed reference to the outcry over an initiative we began in mid-December on Forbes.com. Nearly 15% of visitors to our site have downloaded software that blocks ads from appearing on Web pages. We asked a percentage of our readers using these ad blockers to turn them off in exchange for an ad-light experience. If they didn't, they would be denied access to our content. Ad-blocking fans flocked to Twitter to denounce us. Staffers voiced strong discomfort as well.

There's history here. Some 25 years ago our industry decided to offer up digital content for free. Insiders have dubbed that move "Original Sin." That sin brought on another, certainly in the consumer's mind. Publishers, unable to pull back on "free," turned to ads of every shape and size—and lots of them—to devise business models without subscriber revenues. Now we have ad blockers. An estimated 200 million people across the world use them, 45 million in the U.S. alone.

At first digital technology disrupted print. Paid subscriptions fell. So did ad pages, the lifeblood of any newspaper or magazine. FORBES magazine, unlike competitors, has seen a strong rise in overall readership (which includes pass-along to others) over the last few years. How did we do that? First, we stuck to our mission of entrepreneurial capitalism. Second, we launched a unique, scalable digital content model that put our brand in front of a new generation of doers. We attacked the print ad issue head-on, too. BrandVoice, our industry-leading native ad platform, offers marketers new ways to engage with readers in our magazine.

Now digital is disrupting digital. So far 2 million Forbes.com visitors, or 44% of those asked, have turned off their ad blockers. It reminds me of Matt Damon's comment in *The Martian:* "You do the math. You solve one problem. And then you solve another. And then another. Solve enough and you stay alive." Eventually Damon's character, Watney, got himself home. "Home" for us is providing the best possible consumer experiences that also work as a business. As we've done these last five years, we'll solve our challenges one by one by one.

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"With all thy getting, get understanding"

LIFE BEGINS AT 83

BY STEVE FORBES, EDITOR-IN-CHIEF

BABY BOOMERS—and everyone else as well—should take inspiration from Donald Rumsfeld, the 83-year-old former defense secretary (for two Presidents, Ford and Bush 43), pharma CEO, presidential candidate, White House chief of staff (Ford), ambassador, three-term congressman, Navy fighter pilot, star college wrestler and much else. He's now relishing his latest undertaking: videogame app developer. Titled Churchill Solitaire, Rumsfeld's app is a resounding success, with hundreds of thousands of downloads (his share of the proceeds goes to military charities).

Legend has it that during WWII Prime Minister Winston Churchill played his own unique version of solitaire to relax himself as he saved civilization. Rumsfeld learned the game back in the early 1970s, when he was serving as our envoy to NATO. He was taught the game by a Belgian diplomat, André de Staercke, who came to know Churchill well during the war, when he served the Belgian government-in-exile in London.

Not long ago a colleague of Rumsfeld suggested that he turn it into an app. A self-described technology Luddite, Rumsfeld nonetheless took up the challenge with his usual gusto. He put together a team of developers, bombarding them with memos—dictated on a recorder and then transcribed—of what needed to be done or improved upon as the project moved forward.

Churchill Solitaire is extremely difficult, involving ten piles instead of the usual seven and two decks of cards instead of one. There's a "devil's row" of six cards that players must eliminate. The game is anything but mindless; lots of strategic thinking is involved. You also play against the clock. You begin as a Sandhurst cadet and, if skillful enough, work your way up to prime minister.

That Rumsfeld is no high-tech nerd didn't deter him. To him, having a goal, the patience and the stick-to-itiveness to deal with problems and—very important—the ability to put together teams and manage them effectively count far more than starting out with a lot of technical expertise.

Whatever one's age, the courage to leave one's comfort zone is the most crucial factor of all.

Fed Foolishness Festers

To see why the outlook for the global economy gets gloomier, just look at what John C. Williams, president of the Federal Reserve Bank of San Francisco, said at a press conference following a forum at which he spoke in late January. Williams was questioned about our central bank's avowed goal to achieve 2% inflation as a way to stimulate our sluggish economy. His answer encapsulates the fatuousness of the central bank thinking that has wrought immense destruction on the global economy.

When asked how a 2% rise in the cost of living—which would add an additional $1,000 in expenses annually for the average American family—would boost the economy, Williams, with the insouciance of the obliviously ignorant, responded that the inflation would lead to a 3.5% rise in real wages. In other words, $1,000 in extra expenses would trigger a rise in a family's income of almost $3,000. If only!

If debasing the value of a currency led to a healthy economy, Argentina, Brazil and Zimbabwe would dominate the world.

• **Faulty Phillips curve.** Williams and most other Fed pooh-bahs are still in the hypnotic thrall of a quack theorem known as the Phillips curve, which posits that there's an ironclad relationship between inflation and unemployment. Experience shows that notion to be nonsense. In the 1980s U.S. inflation and unemployment both went sharply down. After World War II Germany and Japan demonstrated that low inflation can go hand in hand with soaring growth.

In a normal free-market economy prices should be

going down, thanks to productivity. For example, a fancy wide-screen TV that cost more than $10,000 at the turn of the century can now be had for a few hundred dollars.

• **Fed incompetence.** Fed boss Janet Yellen and her predecessor have both preached the necessity of 2% inflation. For years the Fed has missed that target. In fact, to the Fed's consternation the dollar has gotten considerably stronger, which has brought about a global collapse in commodity prices.

This must be the first time in history that governments—in this case, the U.S., Japan and the EU—couldn't figure out how to debase their money.

Williams was also asked what would happen if inflation went over 2%. He blithely shrugged off any concern, saying the Fed would take appropriate steps. Left unsaid was Williams' belief that the Fed would then have to try to create some unemployment. A powerful government agency deliberately trying to throw millions of people out of work in the name of a discredited theory and not because of changing market preferences would be morally reprehensible.

• **Price controls never work.** Interest is the price a borrower pays a lender for a loan. Williams et al. believed that by setting this price artificially low businesses would borrow more, which, in turn, would rev up the economy.

This is as absurd as the Fed decreeing that all prices be cut by 75% in order to stimulate more consumer spending. Sure, shelves might empty, but they would stay empty. As used to be sardonically said in the Soviet Union, "The health care is free, but you can't get any."

Something similar happened here for small businesses. Large companies borrowed heavily because the money was so cheap. However, capital expenditures by businesses stagnated because of economic uncertainties, exacerbated by the Fed's Soviet-style behavior. Instead, much of the money went to financial engineering via stock buybacks or to finance acquisitions. Loans to smaller businesses suffered.

In the past five years credit to Big Government has surged 37%; to corporations, 32%; and to small businesses and households, a mere 6%.

The Bank of Japan's announcement that it would be implementing negative interest rates compounds the price suppression of loans. The European Central Bank has been doing this for months.

You'd think that after so many years of failure the central banks would realize the obvious: They can't manage their economies any more than the Soviets could. But central bankers, like all bureaucrats, love power, even if they wield it destructively.

Sailing for Wisdom and Wealth

With the world increasingly in disarray, economies snagged in sluggishness and U.S. politics looking like an out-of-control reality show, you should consider signing up for one or both of this year's Forbes Cruises for Investors (Tel.: 800-530-0770). They combine great sightseeing with moneymaking insights from our onboard investing experts. You get to enrich your mind and your pocketbook, even as global policymakers continue to make a hash of things.

The first of our tours—May 1–13—begins in Athens, goes to various Greek islands and concludes in Rome. With us will be one of the world's most astute energy experts, Mark Mills; value-investing guru David Dreman; eminent fixed-income authority Marilyn Cohen; and outstanding and outspoken investment advisor Barry Ritholtz. Publisher Rich Karlgaard will once again serve as master of ceremonies and will also give us his always original and oft-inspiring insights. I will be there to help you make sense of the political scene and its implications for investors.

You won't want to miss the second cruise—Nov. 29–Dec. 6—from San Juan to New Orleans, which comes in the wake of the elections. F

Restaurants: Go, Consider, Stop

Edible enlightenment from our eatery experts and colleagues Richard Nalley, Monie Begley and Randall Lane, as well as brothers Bob, Kip and Tim.

● Cosme
35 East 21st St. (Tel.: 212-913-9659)

Mexico City's celebrity chef Enrique Olvera's chic, cosmopolitan outpost in the Flatiron district deserves all the raves it has received. Olvera is a magician with ingredient blending, from the stunning, melting textures of the sea urchin tostada with bone marrow salsa to the clove-inflected mussel tostada with pig's feet to the sensational crispy octopus with hazelnut mole pickled potatoes.

● Dovetail
103 West 77th St. (Tel.: 212-362-3800)

Eight years ago Dovetail redefined dining on the Upper West Side, and it has garnered chef John Fraser multiple Michelin stars for his efforts. Recently there have been hints that it's coasting on its laurels: bad service, tiny portions and dish after ho-hum dish whose executions are forgotten as soon as the plates leave the table. Here's hoping for a second wind.

● Cherche Midi
282 Bowery, between Houston and Prince streets (Tel.: 212-226-3055)

This is so predictably like a stage-set upmarket brasserie that it verges on kitsch: tin ceiling, back-lit bottles, red leather banquets. However, the many patrons in this noisy, frolicsome room have a blast, toasting with the inventive cocktails and working their way through the excellent wine list and tucking into the wonderful saddle of lamb, not fretting the small stuff, like soggy dandelion salad, dry suckling pig and not-quite-fresh brioche.

● Peacock Alley
Waldorf Astoria, 301 Park Ave., at 50th St. (Tel.: 212-872-1275)

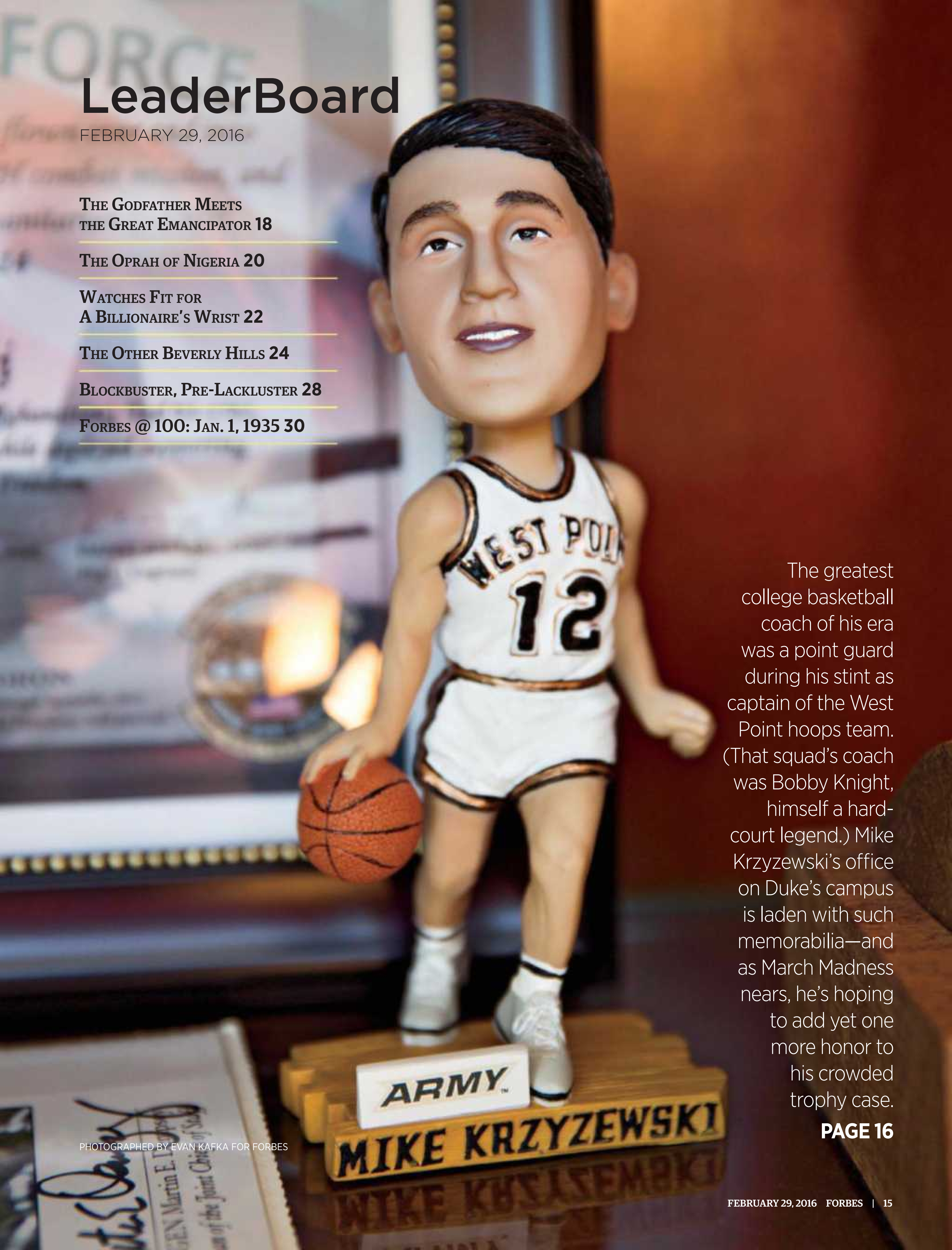
While this spot will never be a destination, it's an attractive place for a leisurely meal. Service is what you'd expect from the veteran Waldorf staff. The hanger steak with seasonal vegetables and the striped bass with tiny clams and braised leeks are delicious. The "by the glass" Riesling is first-rate and really is from Germany. And the golden macaroons with dark chocolate ganache filling are not to be missed.

● Ocean Prime New York
123 West 52nd St. (Tel.: 212-956-1404)

This sleek, large, new fish restaurant offers a wide variety of delights from the sea, cooked and uncooked. A surprise standout among the starters is the white truffle caviar deviled eggs. The California roll accompanying the sushi salad is fresh and flavorsome, and the seafood salad is enough to feed a small family—with no stinting on the succulent chunks of lobster. Tops for dessert are the crème brûlée and the ten-layer carrot cake.

LeaderBoard

FEBRUARY 29, 2016



PHOTOGRAPHED BY EVAN KAFKA FOR FORBES

The greatest college basketball coach of his era was a point guard during his stint as captain of the West Point hoops team. (That squad's coach was Bobby Knight, himself a hard-court legend.) Mike Krzyzewski's office on Duke's campus is laden with such memorabilia—and as March Madness nears, he's hoping to add yet one more honor to his crowded trophy case.

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SEAT OF POWER

An assistant coach on the 1992 Olympic "Dream Team," Krzyzewski later led the U.S. hoops squad to gold medals in 2008 (Beijing) and 2012 (London). This summer's Games in Rio will be his last at the helm.

Krzyzewski raised $7 million to establish the Emily K Center in honor of his late mother in 2006. The 29,000-square-foot building near Duke's campus is home to afterschool programs that steer underprivileged kids, like those in this photograph, toward a college degree.

The Christian Laettner–led repeat title winners of the early 1990s? The freshman-laden 2015 tournament victors? Krzyzewski says picking the favorite of his five championship teams is impossible. He does admit the first, in 1991, will always be special: "There wouldn't be a second unless there was a first."

Coach K's Corner

IT'S NEARLY TOURNEY TIME—and even though defending champion Duke hasn't had *quite* the slay-all-comers season its fans have grown accustomed to, the road to college-hoops nirvana invariably runs through Durham, N.C. Through here, specifically: the office of head coach Mike Krzyzewski, who since 1980 has led the Blue Devils to five national titles. When he's at his desk, he can gaze out over Cameron Indoor Arena, as well as "Krzyzewskiville," the tent village that springs up before big games as students camp out to snag the best seats.

Coach K has his chair from each NCAA Final Four Duke has reached during his tenure. That's 12 (so far), meaning floor space is at a premium—"a real good problem to have," he says.

One of his most recent honors is the Joe Lapchick Character Award, named for the legendary former coach of St. John's University and the New York Knicks—a lifetime-achievement honor of sorts for hoops coaches of impeccable integrity.

This who's who gallery of coaching immortals includes shots of Krzyzewski with UCLA's John Wooden, North Carolina's Dean Smith and Syracuse's Jim Boeheim, among others. "You don't want to forget the foundation," he says, "the blocks the game was built on."

Krzyzewski received this sword from Army, his alma mater and his first head-coaching gig, as thanks for having founded a "Distinguished Leaders" series that brings high-powered pros—Jeffrey Immelt, Indra Nooyi and more—to West Point to speak to cadets.

This cabinet is full of coins given to Krzyzewski by numerous unit leaders throughout the U.S. Armed Forces. "They're a reminder of people who take their commitment to others to the highest level," he says, "which is what you want your players to do."

BY STEVE SCHAEFER
PHOTOGRAPH BY EVAN KAFKA FOR FORBES

30 UNDER 30

Insides Men

Forbes 30 Under 30 body workers, in 30 words or less.

Danny Cabrera, Ricardo Solorzano

BIOBOTS | 23, 26

The bioprinters used to create human tissue in labs used to be expensive and unwieldy; BioBots' desktop version is 90% cheaper.

Ben Harvatine

JOLT ATHLETICS | 24

Jolt's wearable sensor can identify a sports concussion as it happens, leading to quicker treatment. Already popular for child athletes, Jolt wants to get its product on college ballers.

David Narrow

SONAVEX | 25

Sonavex makes an implant that uses visualization to reliably detect post-operative blood clots, minimizing complications. Narrow says recent successful tests on pigs mean the product could be available in 2018.

Adrienne Oda

HEALIONICS | 29

Synthetic blood vessels make dialysis easier on patients with kidney failure. Oda is working on durable silicon grafts that mesh more effectively with blood vessels than current incarnations.

Andrew Dalman

ADVANCED BONE TECHNOLOGY | 24

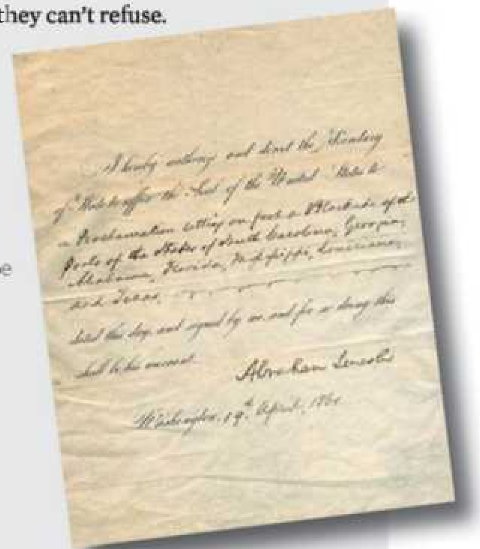
Dalman's company is working on SimuBone, a 3-D-printed bone that can reduce the demand for cadaver bones in medical schools.

ON THE BLOCK

Prized Papers

ABRAHAM LINCOLN, Mario Puzo—both had a way with words. Documents containing some of their original writing is up for grabs for a moneyed history buff or Corleone devotee. Go ahead, make 'em an offer they can't refuse.

Lincoln's Memo



A ten-line directive signed by the 16th president on Apr. 19, 1861 ordering his secretary of state to begin the blockade of Confederate ports. The Supreme Court deemed his signature on the document to be the Civil War's official start.

HOW MUCH:
$900,000
WHERE AND WHEN:
ON SALE NOW AT THE PHILADELPHIA-BASED RAAB COLLECTION
PROVENANCE:
LONG OWNED BY THE RAAB COLLECTION'S FOUNDER, STEVEN RAAB

Puzo's Archive

A veritable trove: 45 boxes of material that include nine partial copies of the screenplay for *The Godfather,* a 744-page version of his earlier *Godfather* novel (then called *Mafia*) and six large oak tag storyboards with the book's outline.

HOW MUCH:
$100,000 (STARTING BID)
WHERE AND WHEN:
RR AUCTION IN BOSTON; AT AUCTION FEB. 18
PROVENANCE:
PUZO'S ESTATE

SCORECARD

Mariah Carey +BILLIONAIRE FIANCE

Singer gets engaged to Aussie playboy James Packer, who inherited a media fortune from his father and proposed with a 35-carat diamond ring.

30 UNDER 30 BY KATHRYN DILL; ON THE BLOCK BY ABRAM BROWN
ILLUSTRATIONS BY PATRICK WELSH; SCOTT BARBOUR/GETTY IMAGES

LeaderBoard

THE BLANK OF BLANK

The Oprah of Nigeria

ONE NATION'S *O* is another's *Mo.* Mosunmola Abudu became Nigeria's answer to the erstwhile queen of daytime after a successful business career. The 51-year-old former Exxon Mobil HR executive had already built her own consultancy and a luxury resort but had no real TV experience when she approached Nigeria's DStv in 2006 with the idea for an Oprah-style program.

The result, *Moments with Mo,* became Africa's first syndicated daily talk show and made Abudu a household name. And just as Winfrey has OWN—the Oprah Winfrey Network—Abudu in 2013 launched her own network, EbonyLife TV, which now reaches 49 of the continent's 54 countries as well as the U.K. and the Caribbean.

In addition to her media empire, the London-born Abudu is passionate about philanthropy, having started the Inspire Africa Foundation. About the only thing she hasn't been able to accomplish is meeting her inspiration: A decade ago Abudu sent numerous e-mails to Harpo Studios seeking Oprah's advice about creating her show. She never got a response.

SCORECARD

Mark Zuckerberg

+$6.5 BILLION

NET WORTH: $50 BILLION

Zuck claims the enviable title of the richest man in Silicon Valley after spectacular 2015 profits cause Facebook shares to spike 21%.

RICHEST BY STATE

South Dakota

POPULATION:
850,000

2014 GROSS STATE PRODUCT:
$43.8 BILLION (0.6% GROWTH)

GSP PER CAPITA:
$51,357
(RANKS NO. 24 NATIONWIDE)

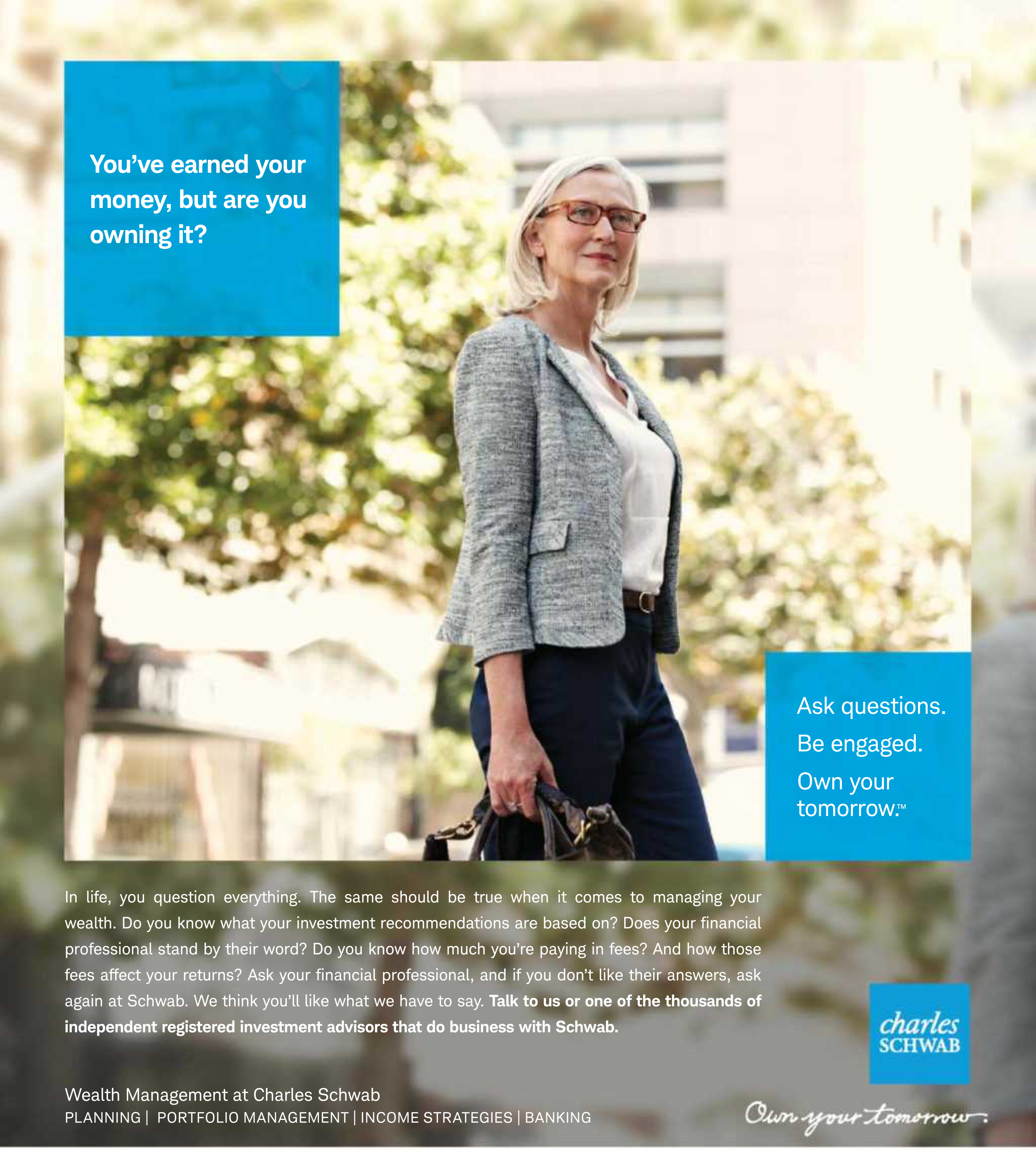
RICHEST: **T. DENNY SANFORD**
$1.4 BILLION

MEET A GUY with a rare problem: T. Denny Sanford can't give his fortune away fast enough. "I want to die broke," he told FORBES in 2007. But nearly a decade and $1.4 billion in gifts later, he's richer than when he began, thanks to the dividends he reaps from his 92% stake in First Premier Bank, which makes money offering high-risk borrowers credit cards with steep interest rates.

Having lost both parents by age 20—his mom died when he was 4, his father 16 years later—Sanford started a building materials company after college. He sold it for $28 million in 1982 and four years later bought a Sioux Falls-based ten-branch bank, which he renamed First Premier. He quickly took advantage of South Dakota's pro-credit-card laws (issuers in the state face no cap on the rates they can charge) and went after an underserved population: people with poor credit. Today the bank has just a dozen branches, yet he has filled millions of wallets with his Premier Bankcards, which typically have low limits and interest rates as high as 36%.

Sanford, 80, still runs the company, though much of his focus is on his philanthropy. When giving, he keeps overhead low (his staff is small—just him, a secretary and a bookkeeper) and amounts large. He has given nearly $1 billion to Sanford Health, a nationwide chain of 43 nonprofit hospitals. He closely studies each prospective gift, viewing each as an investment in a better future. "And I want a return on my damn investment."

THE BLANK OF BLANK BY KATHRYN DILL; RICHEST BY STATE BY CHASE PETERSON-WITHORN
ILLUSTRATION BY CHRIS LYONS (TOP); MONEY SHARMA/AFP/GETTY IMAGES (BOTTOM)


You've earned your money, but are you owning it?
Ask questions.
Be engaged.
Own your tomorrow.™
In life, you question everything. The same should be true when it comes to managing your wealth. Do you know what your investment recommendations are based on? Does your financial professional stand by their word? Do you know how much you're paying in fees? And how those fees affect your returns? Ask your financial professional, and if you don't like their answers, ask again at Schwab. We think you'll like what we have to say. Talk to us or one of the thousands of independent registered investment advisors that do business with Schwab.
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SEAL THE DEAL

The New Power Watches

Six timeless timepieces that make a statement every second.

WILL WEARING the watch of a billionaire help you understand what makes him tick? Warren Buffett has long favored a gold Rolex Day-Date (the so-called President watch), while Baby Buffett, Bill Ackman, prefers a Patek Philippe Ref. 5216P to count the hours. These timepieces are classic enough to go from blue jeans to black tie—and unlike many of today's watches, they're low on complications. (Though knowing the date is still pretty useful.) Why does having the right watch matter so much? As the Oracle of Omaha once divined: "The rich invest in time; the poor invest in money."

1) Globemaster Master Chronometer with a 39mm stainless steel case by Omega ($7,700)
2) Portugieser Automatic with a 39mm stainless steel case by IWC ($12,700)
3) Cellini Time with a 39mm 18kt Everose gold case by Rolex ($15,200)
4) Elite Chronograph Classic with a 42mm stainless steel case by Zenith ($7,600)
5) Clé de Cartier with a 40mm 18kt pink gold case by Cartier ($18,800)
6) Calatrava Reference 5227G with a 39mm white gold case by Patek Philippe ($34,700)

BY MICHAEL SOLOMON

PHOTOGRAPH BY DAVID ARKY; CREATIVE STYLE DIRECTOR: JOSEPH DEACETIS; STYLE ASSOCIATE: JUAN BENSON

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Citation Longitude 3,400 nm**
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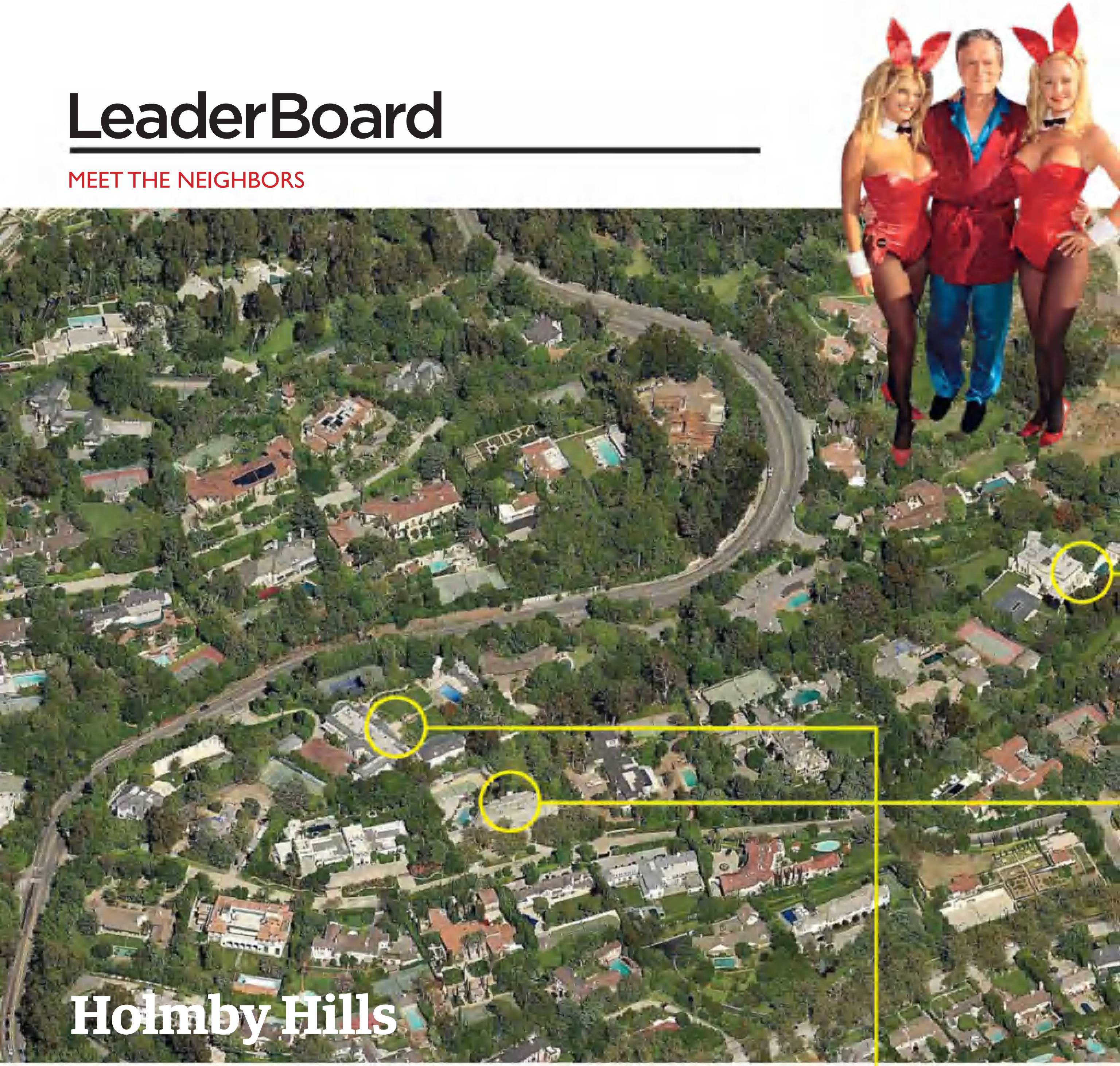
MEET THE NEIGHBORS



Holmby Hills

JUST ABOVE BEVERLY HILLS, west of Hollywood, lies another ultra-exclusive enclave: Holmby Hills. The hamlet has been well-heeled for decades: "Our absolutely, positively favorite thing to do was torment the neighbors," Nancy Sinatra recalled about her childhood there in a 1985 biography of her father. "And, boy, you could drop names like water bombs. Loretta Young lived one house down. Up the street ... lived Walt Disney." Holmby Hills retains those star-studded streets, and now one of its most notorious residences is up for sale: the Playboy Mansion. The cost of America's most famous bachelor pad (and the opportunity to borrow a cup of sugar from Diddy)? A cool $200 million, making it the most expensive finished home on the market in America.

MAX AZRIA

LISTED PRICE: **$85 MILLION**

Azria has a home with a name, too: the Maison du Soleil—"Sun House." Azria, founder of fashion house BCBG Max Azria, does seem to have everything under the sun within his 30,000-square-foot, 17-bedroom, 22-bath residence. Designed by the architect who built homes for Frank Sinatra and Lucille Ball, Sun House has a glass-enclosed tennis court, five gardens (French, Japanese, Moroccan, English and herb), a separate greenhouse for organic produce and a 6,000-square-foot movie theater. Oh, and a 2,500-square-foot home office for the executive who prefers a short commute (and the chance to spend lunchtime relaxing within the traditional Moroccan bathhouse on the grounds).

HUGH HEFNER
LISTED PRICE: **$200 MILLION**
The 12-bedroom, 21-bath, 29-room manse has been Hef's home since 1975 (it's the second Playboy Mansion; the first was in Chicago, where he started *Playboy* magazine). It's a 20,000-square-foot, English-manor-style house on 5 acres, and as its listing notes, it has "every amenity imaginable": wine cellar, home theater, four-bedroom guesthouse, tennis court, pool with a grotto and a rare license for a private zoo.

DAREN METROPOULOS
ASSESSED VALUE: **$19.3 MILLION**
Metropoulos, who's working with billionaire dad C. Dean and brother Evan on the great Twinkie restoration (they own the remains of Hostess), bought the place from Hefner in 2009. It's smallish—for Holmby Hills. Just five bedrooms, six bathrooms, 7,300 square feet, 2.3 acres. One special perk: a private connecting gate to the Playboy Mansion.

PETRA ECCLESTONE
ASSESSED VALUE: **$88.8 MILLION**
Ecclestone, daughter of Formula 1 billionaire Bernie, lives in the old digs of TV producer Aaron Spelling *(Charlie's Angels, Beverly Hills, 90210).* It came with a less-than-subtle nickname: The Manor. With at least 50,000 square feet, 11 bedrooms and 16 bathrooms, it's a well-deserved moniker.

SEAN COMBS
ASSESSED VALUE: **$39 MILLION**
Combs, better known as the rapper Diddy, has a 9-bed, 12-bath place on 1.3 acres. He's an oft-cited Holmby Hills resident in news reports, but a Diddy spokeswoman wouldn't comment; the actual owner of the house is Tony Abrahams, CFO of Combs Enterprises.

IAN LIVINGSTONE
ASSESSED VALUE: **$45.9 MILLION**
Want to escape rainy London? Just jet off to southern California like Livingstone, a British property billionaire. He snapped up this four-bedroom, six-bath estate, which resembles a European villa, in 2014. The place came with an Olympic-size indoor pool, a spa, steam and massage rooms, another outdoor pool with a waterfall, a pool house, a guesthouse and an apartment for staff.

ERIC SCHMIDT
ASSESSED VALUE: **$22.4 MILLION**
The Alphabet honcho's pied-à-terre is a 9,000-square-foot French château complete with five bedrooms, a guest suite and two maid's rooms. The address on the property's assessment traces back to Schmidt's charitable foundation; a Google spokeswoman wouldn't comment on the property, which includes a pool and manicured grounds across 1.3 acres.

BY ABRAM BROWN
PHOTOGRAPHS STEVE GRANITZ/GETTY IMAGES; MARK ROBERT MILAN/GETTY IMAGES; ALBERT L. ORTEGA/GETTY IMAGES

Jonathan Abbas, *Honor Health*
Victoria Castillo Abeleda, *Walt Disney World*
Matt Adams, *Harris Teeter*
Nasser Akari, *Washington Gas*
Jeffrey E. Alcorn, *Tempt-In Solutions/Quad Graphics*
Carolina Alzate, *PNC Wealth Management*
Karen Ambari-Longo, *Deloitte*
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Craig Anderson, *RYCO Hydraulics, Inc.*
Paul Anderson, *Port Tampa Bay*
Tom Andrews, *Andrews & Thornley Construction*
Jimmy Atkinson, *AUL Corporation*
Mohammad Azab, *Astex Pharmaceuticals*
Martin Bahar, *USC*
Brian Bahnsen, *HomeServices Lending*
Tom Barfield, *Accenture*
Bob Barnes, *International Bank of Commerce*
Missy Bass, *C & F Mortgage Co.*
Diane Baylor, *PwC*
Dean Beasley, *Doctors Hospital*
Rob Beckham, *William Morris Endeavor Entertainment*
Patty Bender, *Retired*
Amy Bernard, *Republic National Distributing Co.*
Dawn Berryman, *The Leukemia & Lymphoma Society*
Svetlana Bilsky, *Polen Capital*

Michael Blackman, *Retired IBM Executive*
Barry Blanton, *Blanton Advisors LLC*
Bob Bohmann, *Johnson Bank*
Tim Bohmann, *Business Development Pros.*
Traci Bolte, *Fidelity*
Nancy Boman, *CTI BioPharma*
Dave Borkowski, *Harkins Builders, Inc.*
Abhay Borwankar, *Deloitte*
Elizabeth Bove, *Seattle Genetics*
Dante Boyer, *The Lab World Group*
Frank Bracht, *Miller Pipeline Corporation*
Denise Bradley, *Teva Pharmaceuticals*
Barbara Bradshaw, *Bradshaw Advertising*
Alex Brager, *E Cohen & Co., CPAs*
Bill Brassine, *Sunrise Media*
Jonathan Braunstein, *Seyfarth Shaw LLP*
Dennis Briggs, *Therakos, now Mallinckrodt Pharm.*
Peter Brock, *Brock Development*
Jill Brodsky-Ibrahim, *Mount Kisco Medical Group*
Pat Brown, *Medtronic*
Matt Browner, *Barclaycard US*
Toni French Brown, *E. Cohen and Company, CPAs*
Lisa Bruun, *EllieMae*
Andrea Bucey, *Lorain National Bank*
Martin Buckland, *Astex Pharmaceuticals*

Catherine Burns, *Seyfarth Shaw LLP*
Thomas Burzynski, *UMT Consulting Group*
Jennifer Butler, *Alston & Bird LLP*
Robin Cameron, *E Cohen & Co., CPAs*
Adam Caplan, *Salesforce*
Effie Cardwell, *Glasgow, Inc.*
Jeff Carlstedt, *CBIZ*
Daniel Carlton, *HM Insurance Group*
Jennifer Carmody, *Deloitte*
Jessica Cassidy, *Senior Planning Advisors*
Pete Chandler, *Marsh Risk & Insurance Services*
Brian Christein, *Dun & Bradstreet*
James Christensen, *Mirati*
Robert Christie, *Sun Sentinel, Retired*
Aida Cicic, *Medtronic*
Matthew Clear, *HKS Architects, Inc.*
Kristin Cloonan, *ERC*
Doc Cohen, *Cookie Associates*
Jeffrey Cohen, *Catapult Learning Inc.*
Barry Cohn, *RGEB Employee Benefits*
Chris Conant, *Salesforce*
Jim Conlin, *Raymond James*
Helen Murphy Connors, *Salesforce.com*
Kelsey Conway, *Nielsen*
Philip Coote, *Wells Fargo*

Mary Coots, *Global Franchise Group*
Rob Cordasco, *Cordasco and Company*
Peter Cordua, *Cordua Pastore & Associates*
Marcus Corwin, *Marcus. W. Corwin, P.A.*
Kris Costa, *Mindset Self-Defense*
Tom Cox, *TD Cox Homes, LLC*
Vick Crespin, *KVC Constructors*
Michael Criscuolo, *Skyline Exhibits & Events*
Kelly Cunningham, *CLM Mortgage*
Regina Cunningham, *Penn Medicine*
Dan Daly, *BMC*
Thuy Dancik, *Dancik International*
Holly Dary, *Robert Half International*
Mike Davenport, *aeSolutions*
Mark Davies, *Barclays*
Steve Dearborn, *Miller Paint Company*
Will Deevy, *Silicon Valley Bank*
Andres Del Toro, *KVC Constructors*
Hank Delmonico, *Biogen*
Vicki Demel, *Campus Life & Style*
Matthew Dennis, *Regions Bank*
Joseph DeSabia, *Barclays*
Jacqueline DeStefano, *Special Education Teacher*
George Devino, *Polen Capital*
Jessica Dhillon, *Big Heart Pet Brands*

CHALLENGE ACC

REGIONAL EXECUTIVE CHALLENGE WINNERS

Sam Forrest
Florida Power & Light

Dan Kaplan
Hard Rock Hotel San Diego

Betsy Katten
Pamela B. Katten Memorial Leukemia Research Foundation

Ronald Kahane, *Arjay Company*
Dan Kaplan, *Hard Rock Hotel San Diego*
Betsy Katten, *Pamela B. Katten Memorial Leukemia Research Foundation*
Gary Katz, *Retired*
Jennifer B Keating, *Copper River IT*
Harold Keer, *Astex Pharmaceuticals*
Mark Keller, *Glatfelter*
Tarah Kemper, *The Dance Factory, Inc.*
Jeff Kepes, *TransNational Payments*
Sumeet Khemani, *FactSet Research Systems*
Mark Kilian, *Community Business Lenders*
Bob Kimbro, *EY*
Mike King, *Northrop Grumman*
Robert Kirkland, *Kirkland Woods & Martinsen*
David Kirtley, *Johnson Controls, Inc.*
Syd Kitson, *Kitson & Partners*
BJ Knapp, *Iowa Realty*
Charlie Kofman, *Retired*
Kelly Kohrman, *KPMG*
Tyler Kowal, *Amazon*
Adrian Kunzle, *Salesforce.com*
Kathleen Lally, *PSEG*
Amy Landesberg, *Goldman Sachs*
Rachel Landrum, *FIS Global*
Todd Lane, *California Coast Credit Union*
Richard Larkins, *EY*
William Lawlor, *Dechert*
Claudia Lay, *The Leukemia & Lymphoma Society*

Shane Lea, *Celgene Corporation*
Chad Lefteris, *UNC REX Healthcare*
Jack Lewis, *Mission Restaurant Supply*
Marc Lewis, *Novartis Oncology*
Todd Linden, *Merchants' Choice Payment Solution*
Sara Lipsky, *The Leukemia & Lymphoma Society*
Christopher Lis, *Cancer Treatment Centers of America*
Richard Loomis, *Disney Channels Worldwide*
Nick Loporcaro, *McKesson Specialty Health*
Gary Luefschuetz, *Accenture*
Brooks Luquire, *Luquire George Andrews, Inc.*
Bailey Lyden, *TrueNorth*
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Beata Madey, *HMIG*
Amanda Maggiotto, *Cleveland Clinic Taussig Cancer Center*
Chris Maher, *Premier Bank - Nebraska*
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Stephen Jasper, *Bass Berry & Sims*
Andrea Johnson, *Re/Max*
Lynsey Johnson, *Federal Realty*
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Chip Jones, *Polen Capital*
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Jefferson Bank

Sarah Sturgis
CRNP, Holy Spirit Hospital

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Scott Rothell, *Harris Teeter*
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Darren Silverman, *Petmate*
Brianne Simonds, *In memory of her grandmother, Fay Sawdy*
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Valerie Wolloch, *Salesforce.com*
Edward Wolochin, *Retired*
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Richard Woody, *Woody Financial Group, Inc.*
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Jackie Ziemianski, *Peoples Natural Gas*
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Diana Zuniga, *Investors Alliance, Inc.*

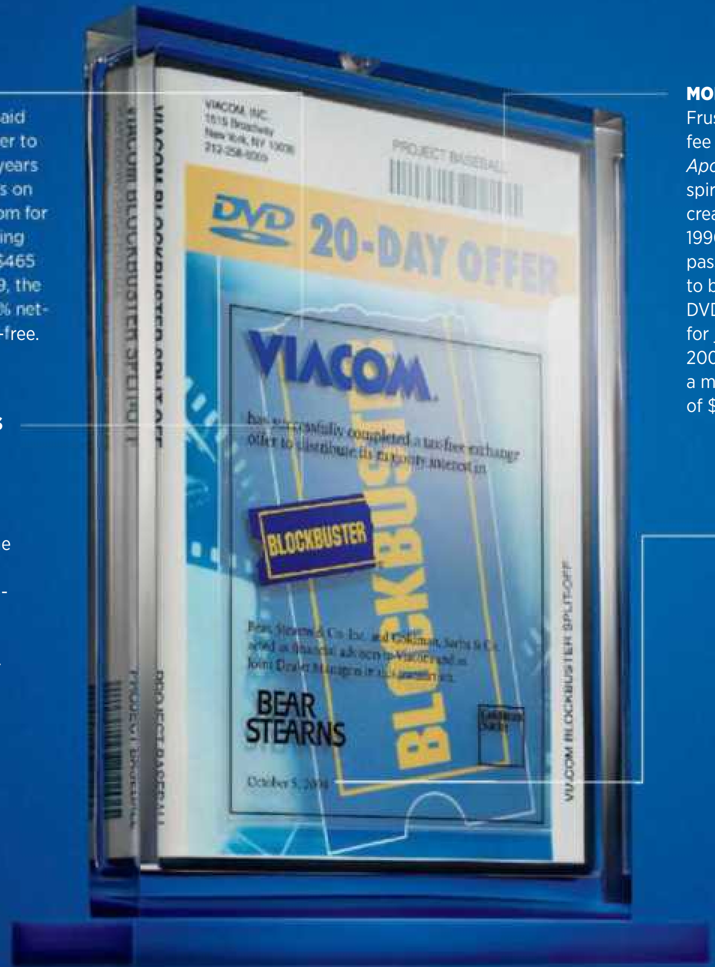
DEAL TOY

Overdue Rental

BACK IN THE not-*that*-distant days when watching a movie at home meant a trek to the local video store, Blockbuster was a legitimate juggernaut. By 2004, though, there were ample signs that the company was missing the shift toward instant viewer gratification. Viacom sold the business for a fraction of what it paid ten years earlier, but it did well to escape while it could. Within a decade the former VHS-and-DVD colossus would fade to black forever.

A FISTFUL OF DOLLARS
Sumner Redstone's empire paid \$8.4 billion to add Blockbuster to its holdings in 1994, but ten years later Viacom's narrower focus on content creation left little room for an unwieldy retail chain. Having already sold a fifth of it in a \$465 million public offering in 1999, the spinoff of the remaining 81.5% netted Viacom \$738 million, tax-free.

SWEET SMELL OF SUCCESS
The rental chain started with a single store in Dallas in 1985. It went national a few years later when Waste Management founder Wayne Huizenga and his partner, John Melk, took over, scooping up franchises and rivals. In the early 1990s Huizenga proposed building a sports-and-amusement park in Florida's Broward County. The plan was scuttled after the sale to Viacom.



MODERN PROBLEMS
Frustration with the late fee levied on a rental of *Apollo 13* supposedly inspired Reed Hastings to create Netflix in the late 1990s; Blockbuster then passed on the chance to buy the nascent DVD-by-mail business for just \$50 million in 2000. Today Netflix has a market capitalization of \$38 billion.

THE LAST PICTURE SHOW
In retrospect Blockbuster was doomed—but the spinout was tinged with ambition, including a Netflix-style home-delivery service. It didn't work. A management coup by Carl Icahn in 2007 failed to rescue the business, and a 2010 spell in bankruptcy ended when billionaire Charlie Ergen's Dish Network bought the company's assets with an eye toward an on-demand platform. The salvation of the Blockbuster brand was a Pyrrhic victory, though: The final remaining company-owned stores closed in January 2014.

SCORECARD

Randal Kirk
+\$370 MILLION
NET WORTH: \$3.8 BILLION
Investors see the Zika virus as an opportunity for Kirk's biotech firm, Intrexon, which genetically modifies mosquitoes so their offspring die before adulthood.

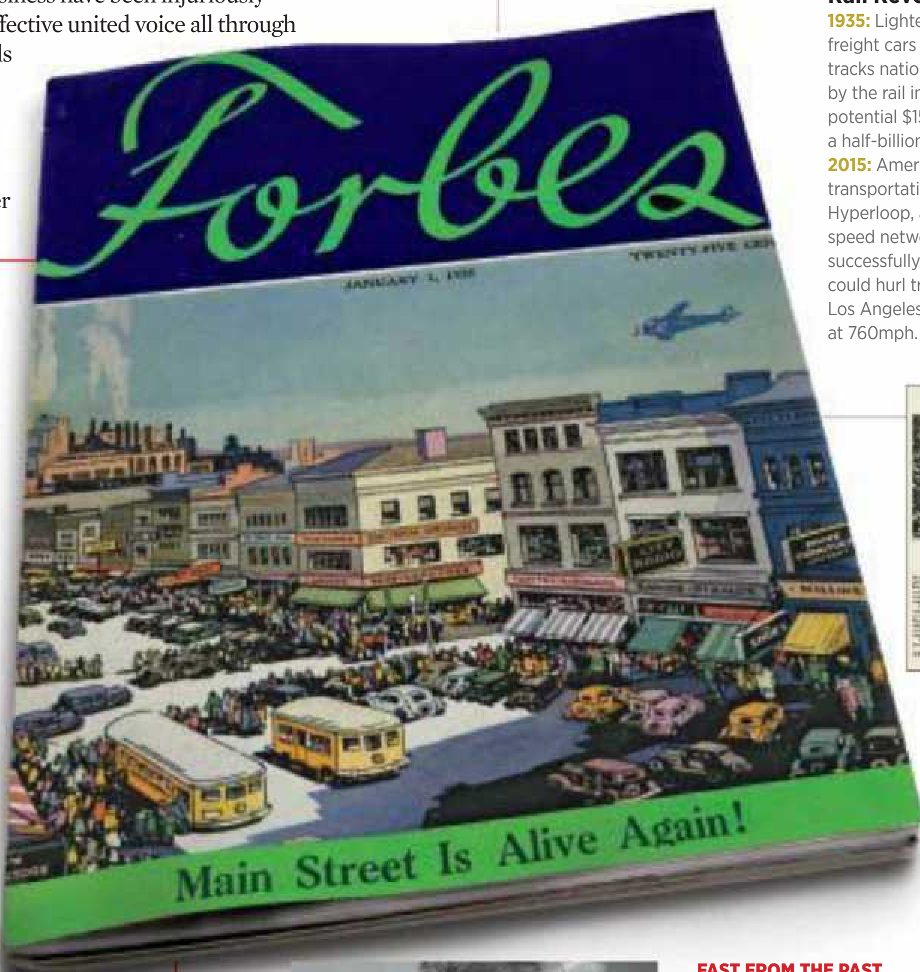
BY STEVE SCHAEFER
PHOTOGRAPH: SAM KAPLAN FOR FORBES; ROGER ERITJA/GETTY IMAGES (BOTTOM LEFT)

LeaderBoard

THE COVER STORY

Reviving America: Jan. 1, 1935

FORBES WELCOMED 1935 on a positive note, predicting the U.S. would be "distinctly farther along the road toward economic health" by year's end. We praised America's increased willingness to get out and spend ("people in general have thrown off much of their apprehension ... and are living more normally") and pleaded with Corporate America to form a united front to help spur the country's recovery ("industry and business have been injuriously handicapped by a lack of effective united voice all through the agitations and upheavals of recent times"). Our forecast turned out to be correct: By 1936 the economy was near 1920s levels before hitting another slump in late 1937.



FAST-FORWARD

Rail Revolution

1935: Lighter, more efficient freight cars were rolling onto tracks nationwide—an effort by the rail industry to save a potential $150 million (almost a half-billion dollars today). **2015:** America's futuristic transportation system? The Hyperloop, an ultra-high-speed network that, if successfully completed, could hurl travelers from Los Angeles to San Francisco at 760mph.

SIGN OF THE TIMES

Dimmer Glory for Bankers

Before financiers began accumulating fortunes ending in seven, eight—heck, nine—zeroes, they had pension plans: "On the theory that banking is no business in which to grow wealthy, but that employees should be rewarded for long and faithful service, banks are fast taking up the pension-plan idea."

AMAZING ADS

Quick Chats

Instant-messaging, 1930s-style.

FAST FROM THE PAST

Roosevelt's Right-Hand Man

Editor B.C. Forbes didn't spare a kind word for Harold Ickes, the Interior Secretary—"Pooh Bah of the Administration, holder of more titles than the Emperor of Abyssinia"—whom he saw as illustrative of bureaucratic bloat. History remembers Ickes more kindly, as the fastidious "Honest Harold" who managed a key part of FDR's New Deal: the Public Works Administration.

BY ABRAM BROWN
TOM KELLEY/GETTY IMAGES; SILVER SCREEN COLLECTION/GETTY IMAGES

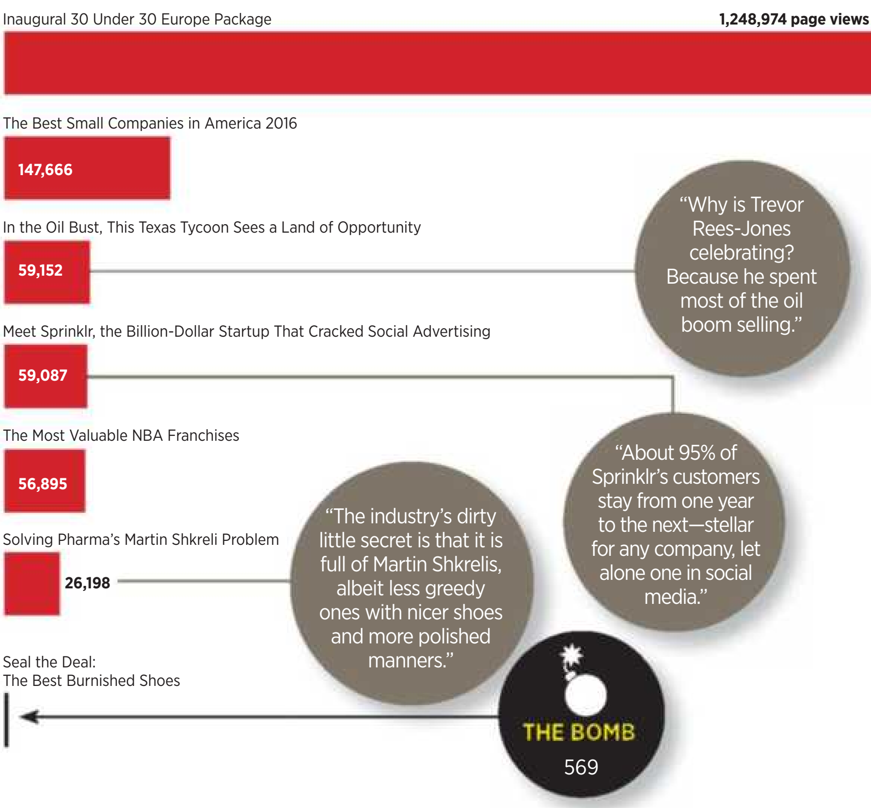
LeaderBoard

CONVERSATION

OUR FEB. 8 ISSUE SHOWCASED some of the top young entrepreneurs from the Old World: our inaugural 30 Under 30 Europe list. Think the Continent's animal spirits are being killed by antibusiness bureaucratic sclerosis? Don't make that claim to these young innovators, who took to social media to express their pride and gratitude. "Honoured to be on the first @Forbes #30Under30 EU list—truly some of the most inspiring young ppl I've met," tweeted Urska Srsen, a Slovenian who makes wearable tech. Said British rapper Little Simz: "Amongst some great company in FORBES 30 Under 30 Europe. Happy is an understatement." And—speaking of animal spirits—hotly tipped U.K. chef Tom Sellers gave a virtual nuzzle to his Maltese, who occupied his lap for our group photo. "Such an honour and a privilege," he posted. "Still can't really believe it, and even Daphne got her moment."

THE INTEREST GRAPH

Did the 300 young Continental entrepreneurs on FORBES' inaugural 30 Under 30 Europe list generate major clicks? *Bien sûr. Sí. Ja!* And of course, mate.



BY MICHELA TINDERA

THE DEAL WITH DRUGS

Readers reacted to "Solving Pharma's Shkreli Problem" (Feb. 8), in which Matthew Herper laid out the facts: Sky-high medicine costs aren't just the fault of one rogue operator.

@HASSON_ROB: "Clearly, corporate America needs to better include #socialwork values with business practices. Re: @MartinShkreli"

@RPLENGE, VP and head of transitional medicine, Merck: "Great read on drug pricing by @matthewherper; it is more than Shkrelashing (Shkreli bashing)."

@PETERBACHMD: "@PhRMA @matthewherper abt @forbeshealth conference: industry secret—many, like #Shkreli, live on price hikes."

@ETHANJWEISS: "Not surprising—@matthewherper w/ best piece on drug pricing in a long time, and a bonus dose of Shkreli too."

@RONCOHENSHAIR, CEO, Acorda Therapeutics; chairman, Biotechnology Industry Organization: "Rare bird: a fair, balanced, thoughtful approach to #drug prices #valueofmedicine. Great work @matthewherper @forbes."

@PSUVAFAN007: "@matthewherper Write if you must, but can we strive not to glamorize [Martin Shkreli's] transgressions [by illustrating the piece with] Warholesque pop art?"

@SPITZSTRATEGY, Digital Strategy & Business Development, Klick Health: "Superb Herper POV: Steps to addressing the #pharma pricing & PR problem."

NEW ANGLO-U.S. PROSPECTS

BRITAIN WILL HOLD a referendum, probably this year, on whether to remain in the EU. The answer is likely to be a No vote, mainly because of the EU's mishandling of the refugee crisis.

The British believe that remaining in the EU would open Britain to a flood of Middle Eastern immigrants. Equally important, it would transfer the key decision-making power from the British government to the bureaucrats in Brussels.

Brussels has become a dirty word in Britain. We now know that last year's large-scale terrorist atrocity in Paris, which cost the lives of 130 innocent people, was carefully organized from a Brussels suburb. The incompetence of the Belgian police has allowed this suburb to become a terrorist enclave.

I have followed the foundation, growth and evolution of the EU for 60 years, since its inception in the early 1950s, when I was working in Paris. Its founder, the French statesman Jean Monnet, would be horrified to see what it has become.

Monnet was a true internationalist, who had worked in the U.S. Though an enthusiastic European, he understood and applauded the qualities that made American society dynamic. He told me at the time: "It is vital that the future Europe be pro-American and be created in harmony with the American ideals of capitalism and democracy. It is equally important that it avoid the evils of bureaucracy. The fewer the number of officials, the better."

Alas, the Brussels that has grown up around the EU has fallen into all the traps that Monnet begged it to avoid. Over the years the EU has evolved its own brand of anti-Americanism, which, almost as a matter of theory, rejoices in the repudiation of American free enterprise and specializes in creating devices that make genuine enterprise difficult and, in some cases, impossible.

Almost from the beginning the EU became a paradise for bureaucrats of the most intransigent type. They were given huge powers, large salaries, enormous expense accounts and near-absolute security of tenure.

As Monnet used to say, if bureaucrats do nothing, they don't do much harm. But the trouble is that they are active—indeed, hyperactive. They judge their success, as their superiors judge them, by the number of regulations they introduce or impose. Thus, the essential characteristic of Brussels rule is that it's a machine for the devising of restrictive orders, directives, controls and prohibitions.

Brussels doesn't have the fundamental characteristic of a real government: the ability to make difficult decisions to resolve problems as they arise. This is why it has failed signally to deal with the refugee problem, as well as with other crises, such as the resurgence of Russian nationalism under Vladimir Putin. On all the big issues confronting Europe today the EU is feeble, irresolute and evasive.

CAN A LEOPARD CHANGE ITS SPOTS?

Prime Minister David Cameron, on behalf of the British government, thinks the EU can be reformed. He wants to stay in, believing that British big business wants to remain, and has therefore been negotiating in Brussels with the more important member governments for changes.

But Cameron is unlikely to get any reforms passed that would change the EU's basic bureaucratic nature. The only way this could come about is by reducing the number of Brussels employees by three-quarters to nine-tenths—and there's no possibility of that happening. The end result will be a phony reform that leaves the power of the bureaucrats intact and their numbers virtually the same.

Cameron will submit this pseudo-reform to the British people for their verdict. Until recently it seemed the likely result would be a decision to stay in. But the refugee flood has shifted British opinion in favor of withdrawal, so it now looks as though the vote will go against remaining.

What would happen next is unknown. The answer, I suspect, is nothing much. One reasonably certain prediction is that Britain would seek to strengthen its ties, especially its economic relations, with the U.S. The two countries have similar economies, and closer links wouldn't be too difficult to devise.

Not much can be hoped for from the Obama Administration, which already has a lame-duck feel about it. But a strong, new U.S. President, especially a Republican, will have an excellent opportunity to strike a bargain and open a new phase in the "Special Relationship." F

THOMAS KUHLENBECK FOR FORBES

PAUL JOHNSON, EMINENT BRITISH HISTORIAN AND AUTHOR; DAVID MALPASS, GLOBAL ECONOMIST, PRESIDENT OF ENCIMA GLOBAL LLC; AND AMITY SHLAES, WHO SERVES AS PRESIDENTIAL SCHOLAR AT KINGS COLLEGE AND CHAIRS THE COOLIDGE FOUNDATION BOARD, ROTATE IN WRITING THIS COLUMN. TO SEE PAST CURRENT EVENTS COLUMNS, VISIT OUR WEBSITE AT WWW.FORBES.COM/CURRENTEVENTS.

RARE HAPPY POLITICAL STORY

TWO TECH BUSTS ago—in 2002, when things were slow—I launched my single-engine Cessna and flew around the U.S. looking for entrepreneurs who were still alive and optimistic. I found many in America's small towns.

One was a fellow who'd just sold his company to Microsoft. Now, Microsoft has always bought smaller software fry, but Great Plains Software was the first that Microsoft—or any other company—had bought from North Dakota. Software from Fargo? Cows, sugar beets, eponymous movies, maybe, but not software. However, the entrepreneur, Doug Burgum, had grown up near Fargo in a little town called Arthur, where his dad and uncles owned a grain elevator. To young Burgum, Fargo looked like Oz.

In 2001 Burgum sold Great Plains, which he had run since 1983, for $1.1 billion. That buys a lot of wheat. But Burgum didn't stop there. He pulled off another near-impossible feat by starting a venture capital fund in Fargo. Repeat: Not in Silicon Valley or New York ... Fargo. One of his early investments was in SuccessFactors, of which Burgum became chairman. He helped sell the company in 2012 to software giant SAP for $3.4 billion.

Then Burgum really reached. One of his next investments—again, from little Fargo—was in an Australian software-tools company, called Atlassian. Again, Burgum became the company's chairman. And last year Atlassian went public and was listed on the Nasdaq (as TEAM).

Burgum is one of those crazy North Dakotans who think their frozen state is the center of the universe. His spectacular record almost argues for it.

What's next for Burgum? In mid-January he announced he's running for governor of North Dakota. He'll seek the nomination through the Republican Party, but he vows that if he doesn't win the GOP nod, he'll run as an independent.

Burgum's timing couldn't be better. The North Dakota oil boom is dead in the well. Global oil prices have killed the market for hard-to-refine shale. Oil prices would have to double for the state's shale oil to again become competitive. But, as Burgum has shown, North Dakota is more than oil and farming. He will make a great leader for his state.

PUNCHING ABOVE THEIR WEIGHT

Across North Dakota's border another serial software entrepreneur, Greg Gianforte, is running for governor of Montana, also as a Republican. I happened to meet Greg during my 2002 Cessna flying/reporting trip as well. At the time he was moving his latest company, RightNow Technologies, out of his Bozeman bedroom into an office park.

RightNow, a Web-enabled call service center, was a pioneer in its day. Greg was born in San Diego and educated in New Jersey, but he fell in love with Montana and decided he wanted his latest startup to be in a place where he could knock off early and go skiing or fishing. RightNow thrived in Bozeman, and Gianforte rode the Web wave hard. In 2012 he sold RightNow to Oracle for $1.5 billion.

Gianforte's and Burgum's successes give the lie to the idea that all good tech startups in the U.S. must eventually migrate to Seattle, San Francisco, Silicon Valley, Austin or Raleigh-Durham—or at least to a town with a decent-size airport and where cars don't have to stop for freight trains and cattle cars. For all the talk about technology's startup and financial energies dispersing around the U.S. and the globe, the fact is that hotbeds like Silicon Valley, Sydney and Shenzhen have consolidated their share of tech creation and wealth. Social demographer Richard Florida says the world is getting spikier, not flatter. The rich are getting rich, and the poor are getting new Wal-Marts.

Gianforte and Burgum are passionate outliers to this dreary defeatism. They think their states can punch above their weight to become players—not just locally but globally. And the people working for smart, global-facing companies in those states can have wonderful lives—with ridiculously affordable housing, good public schools, fine outdoor recreation, college sports teams to cheer for and up-and-coming restaurants in which to dine.

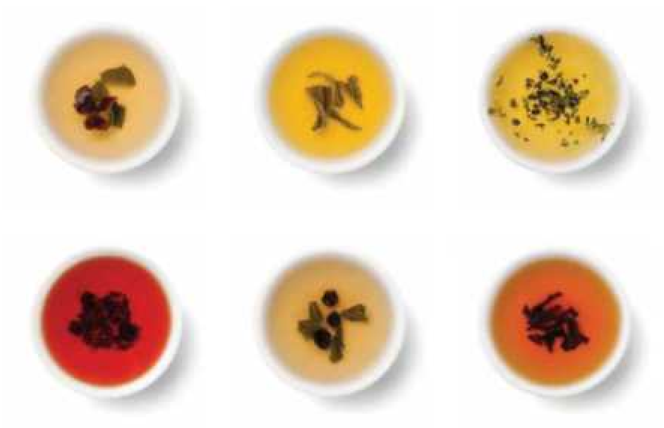
These are the kinds of happy results that Gianforte and Burgum, as successful entrepreneurs, have created for their small states. And now both propose to govern their states in a way that attracts capital and talent and other raw material beyond rich soil and deep wells. Makes you feel good about our country. Even good about Republicans. F

RICH KARLGAARD IS THE PUBLISHER AT FORBES. HIS LATEST BOOK, *TEAM GENIUS: THE NEW SCIENCE OF HIGH-PERFORMING ORGANIZATIONS*, CAME OUT IN JULY. FOR HIS PAST COLUMNS AND BLOGS VISIT OUR WEBSITE AT WWW.FORBES.COM/KARLGAARD.

THOMAS KUHLENBECK FOR FORBES

Verticals

FEBRUARY 29, 2016



The Republic of Tea boasts more than 300 varieties of premium loose-leaf, including Dream by the Fire, Organic Dancing Leaves and (product tie-in alert!) Downton Abbey English Rose; the 34 shown here are barely more than 10% of what the company offers. Why is its executive chairman, Ron Rubin, so reliably Zen? Because he's debt-free—and uninterested in selling.

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Bad Reception

Qualcomm is coming off a miserable year. Don't expect a miraculous rebound anytime soon.

BY AARON TILLEY

Steve Mollenkopf had one of those years in 2015 you don't want to relive anytime soon. The CEO of Qualcomm, the San Diego semiconductor firm with technology in most high-end smartphones, lost Samsung as a customer for the year, had difficulty collecting licensing royalties from China's emerging smartphone giants, dealt with rumors that its top-of-the-line chips were overheating and narrowly escaped an effort to break up the company from activist hedge fund Jana Partners. Revenue for the year fell 5% to $25.3 billion, and net income dropped 34% to $5.3 billion.

Since Mollenkopf took over as CEO two years ago from Paul Jacobs, the son of Qualcomm cofounder Irwin Jacobs, the stock is down nearly 32%—erasing more than $42 billion in value—with most of that loss happening over the last year. "The company is 31 years old, and I've been here for 21 of those years," says Mollenkopf, leaning back in his office chair on a typical sunny day in San Diego late last year. "For the first 29 of those years, there's been almost infinite growth in the handset business. That market has really dominated our business."

Except now the market isn't growing like it used to. Industry volumes rose 13% last year, down from 24% in 2014. All the high-end Android phonemakers (read: Qualcomm's biggest customers) such as Samsung, LG, Sony and HTC faced severe slowdowns, and the only company making a substantial profit in smartphones is Apple, which buys less expensive components from Qualcomm.

Ups and downs are part of Qualcomm's history. Every time wireless technology has made a generational leap—from analog to digital, and then from 3G to LTE—Qualcomm rode the lucrative updraft because its patents covered much of the key intellectual property behind each new stage of cellular technology. Mollenkopf oversaw crucial aspects of many of these transitions. He led its chip business during the 4G launch and was president and

Steve Mollenkopf took over the top job at Qualcomm just as the smartphone market hit the growth wall.

PHOTOGRAPH BY ROBERT GALLAGHER FOR FORBES; STEVE MOLLENKOPF WEARS A SHIRT BY JOHN W. NORDSTROM AND SUIT BY HICKEY FREEMAN. CREATIVE STYLE DIRECTOR: JOSEPH DEACETIS; GROOMING: GERINE CORONADO

COO when the company rolled out its Snapdragon processors. "People were saying Qualcomm was a one-trick pony," Mollenkopf says. "I think we proved them wrong." But after each transition played out, Qualcomm often lost momentum. The next big transition, from LTE to fifth-generation wireless (5G), won't be under way until 2020.

Qualcomm appears to be winning some Samsung business back in certain markets with the next version of Snapdragon, but the damage has been done. In abandoning Qualcomm, Samsung proved it was perfectly capable of building its own high-end smartphone chip for Western markets. "Qualcomm has the best mobile chips in the world, but the gap with the competition is getting narrower," says Bernstein Research analyst Stacy Rasgon.

Mollenkopf, referred to by his colleagues as "cerebral" and "professorial," has been taking some steps to get Qualcomm off the smartphone roller coaster. He's focusing his executives on attacking new markets: Anand Chandrasekher for servers, Patrick Little for automotive and Raj Talluri for drones and Internet-connected devices, such as lightbulbs, thermostats and watches. The mobile chip division also received its own reshuffle: Mollenkopf got rid of the confusing co-president structure by promoting Cristiano Amon as sole president late last year—and demoted Murthy Renduchintala, who was promptly snatched up by Intel for a major new executive position.

Ten years ago Qualcomm's CEO could count on his fingers and toes the customers that mattered—maybe a couple dozen cellphone makers and telecom networking companies. These days Mollenkopf has to talk with CEOs in every major consumer-product category. "We have the technology that these companies need. We just have to figure out how to fan out to 15 different industries trying to take advantage of that," Mollenkopf says. "Not unlike with the military, you need a huge army to go after land forces, and you need submarines and ships to focus on new markets. That's essentially what I'm doing with the company."

In 2014, selling chips outside the handset industry, Qualcomm grossed about $1 billion, or 5% of its semiconductor products business (which generates roughly two-thirds of its total revenue). Mollenkopf expects that share will rise to 10% this year, or $1.7 billion. The auto segment has begun bearing fruit with the announcement that 2017 Audi vehicles will come equipped with Qualcomm chips to power their infotainment systems.

But none of these new markets can deliver smartphone-like volumes. The car industry sold 80 million vehicles globally in 2014, compared with 1.5 billion phones sold. Consumer drones was a 400,000-unit industry in 2015, according to CEA Research.

Bernstein's Rasgon still worries that the executive team is in denial. Management has guided its earnings estimates below Wall Street consensus in 11 of the last 12 quarters. The overall semiconductor industry is slowing and consolidating, and most of Qualcomm's peers have turned quickly to buying their way to growth. The chip industry had $145 billion in M&A deals in 2015, up from $46 billion the year before, according to Dealogic. Some of the biggest included a $40 billion merger of NXP and Freescale, Avago Technologies' $38 billion purchase of Broadcom, and Intel's $16.7 billion acquisition of Altera.

Qualcomm? It paid $2.4 billion in August for CSR, a market leader in Bluetooth radio chips for cars. "Qualcomm's head has been in the sand until recently about the nature of the situation," Rasgon says. "Steve and the entire management delayed the recognition of structural shifts in the market. They got fat, dumb and happy." With the company share price at $45, Rasgon still isn't sure it has hit rock bottom.

Qualcomm is getting more serious about dealmaking, hiring Brian Modoff from Deutsche Bank Securities to run M&A, reporting directly to Mollenkopf. But Modoff is likely to find there aren't a lot of juicy takeover targets left.

"Our culture is one of change and exploration," Mollenkopf says. "In our 30-year history, these are probably among the hardest problems we've had to solve. That being said, I think we've gotten through them."

FINAL THOUGHT

"My scars remind me that I did indeed survive my deepest wounds." —**STEVE GOODIER**

#

BY THE NUMBERS

WILL ZIKA UNRAVEL TRAVEL?

TOURISM IS A MAJOR CONTRIBUTOR TO THE ECONOMIES OF MANY OF THE COUNTRIES IN LATIN AMERICA AND THE CARIBBEAN, THOSE MOST AFFECTED BY THE ZIKA VIRUS. NONE HAS AS MUCH AT STAKE AS BRAZIL, WHICH HAS BEEN SPENDING HEAVILY TO PREPARE FOR AN INFLUX OF VISITORS FOR THE OLYMPICS THIS SUMMER IN RIO.

TOURISM RECEIPTS OF COUNTRIES AFFECTED BY ZIKA

MEXICO
$14.3 billion

CARIBBEAN ISLANDS
$11 billion

BRAZIL
$7 billion

PANAMA
$5.2 billion

ARGENTINA
$5 billion

COLOMBIA
$4.8 billion

PERU
$3.9 billion

Figures are from 2013. *Sources: World Tourism Organization; Yearbook of Tourism Statistics; World Bank.*

CHRISTOPHE SIMON/AFP/GETTY IMAGES

The Godfather of Digital Cartography

It's been five decades since Jack Dangermond started Esri, and we're still discovering ways that his maps can reshape the world.

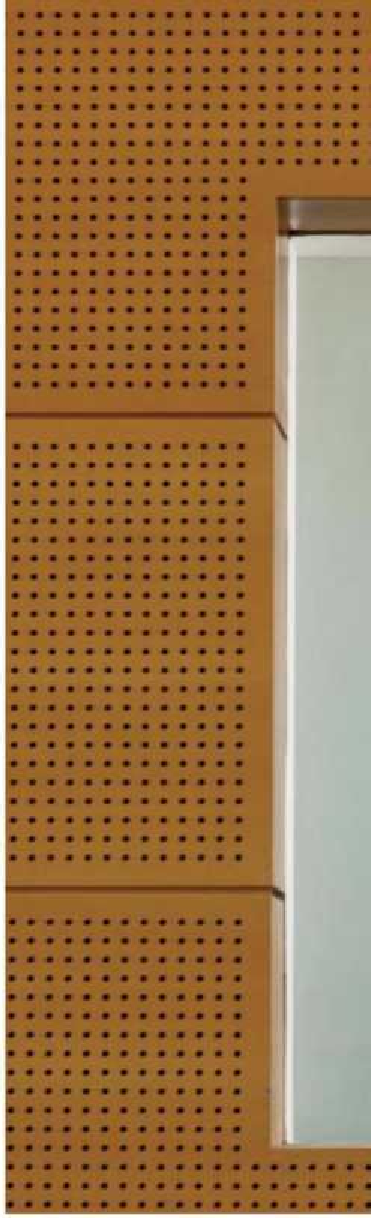
BY MIGUEL HELFT

On the last Friday in January Los Angeles Mayor Eric Garcetti gathered in front of a group of reporters and government officials to unveil his city's latest tech initiative: GeoHub, a digital mapping portal aimed at reinventing how L.A. delivers services. Maps, of course, are vital tools of municipal business everywhere, be it in planning, transportation, public safety, public works, economic development and more. But for the first time a major city had built a real-time digital dashboard that would allow anyone—city workers, the public, NGOs, startups, the media—to access and mash up those maps. Garcetti described how after an earthquake a firefighter equipped with an iPad might immediately be able to find fire hydrants, sewer lines, electrical equipment, building infrastructure and the location of other emergency responders. Similarly, an NGO providing homeless services might see how encampment locations are affected by police activity or liquor store openings. GeoHub, Garcetti said, would help to "improve the quality of life" in Los Angeles. He then moved aside to make way for the man who built GeoHub: Jack Dangermond, a lanky white-haired 70-year-old billionaire who is the unlikeliest of tech moguls.

These days Google Maps has become part of modern life, getting you from here to there efficiently, pinpointing the location of your Uber. But long before Google was born—even before its founders were born—it was Dangermond who essentially invented the digital map. Esri, the company he founded with his wife, Laura, in 1969, has toiled in relative obscurity to become one of the more improbable powerhouses in tech, having survived wrenching shifts in computing that destroyed scores of its fellow tech pioneers. Dangermond deftly adapted Esri software over the years, from minicomputers to workstations and then to PCs, the Internet, the cloud and mobile devices. Esri, which is still privately held by the Dangermonds, had $1.1 billion in sales in 2014, and FORBES estimates its value at $3 billion. "He kind of created the industry," says John Hanke, who for six years led Google's mapping efforts. Products like Google Earth, Google Maps and Google Street View, Hanke says, "were built on the shoulders of what he created."

Hanke would know. As he cemented Google dominance in maps, he helped to create what many thought was the biggest existential threat Esri ever faced. But as Google aimed its maps mostly at consumers, Esri was able to hold on to its revenue base among power users in business, government and other organizations. Google is great for directions or locating your home on Zillow. But if you are, say, the Bavarian police charged with securing the G7 Summit near Munich and need a detailed real-time dashboard that can pinpoint every delegation, police officer, emergency vehicle, first responder, protest site, road closure, mountain trail and access point to the summit's venue, you'll use Esri. Last year Google pulled the plug on a halfhearted push into enterprise maps and began moving its customers to Esri.

Esri owns more than half of the market for so-called GIS (short for "geographic information systems") software, and its technology is used around the world by some 350,000 businesses, government agencies and NGOs, which collectively create 150 million new maps every day. Customers include the White House, FEMA and the U.S. Geological Survey;



A man Bill Gates calls "one of a kind": Jack Dangermond, cofounder of mapping-software giant Esri, in his office in Redlands, Calif.

ROBERT GALLAGHER FOR FORBES

virtually every city and county in the U.S. and scores of them overseas; oil and gas firms; retailers and utilities; and environmental groups. UPS used Esri's maps as part of an initiative to make its routing more efficient, which is helping to save more than $300 million annually. Walgreens is using Esri technology to choose locations for new stores, track the flu and decide where its beauty products should expand next. And NGOs, including the Bill and Melinda Gates Foundation, have used Esri to help lead campaigns against malaria and Ebola in Africa. "One of the areas of technology that has gone further than I ever expected is mapping," Microsoft cofounder Bill Gates told FORBES in an e-mail. "And we have Jack Dangermond to thank, in large part, for his pioneering efforts of almost 50 years." Gates added: "He's one of a kind."

In many ways Esri is the original tech "unicorn," but its ascent to the billion-dollar club is virtually unrecognizable by today's norms. Dangermond never took outside financing, and other than a $5,000 loan from his mother in the early days, Esri never borrowed money. It has been profitable since day one. "Venture capital can be attractive, but it comes at an enormous cost," Dangermond says during an interview in his office. "You have to buy into someone else's vision." Over the years Dangermond has rebuffed acquisition offers and believes the choice to remain private has paid off handsomely and allowed him to avoid the short-term pressures of the stock market. While the company has let go of employees, it never had cost-cutting layoffs.

Dangermond was raised in Redlands, Calif., a town of roughly 25,000 at the time, about 60 miles east of Los Angeles. His father was a gardener who had emigrated from Holland,

and his mother was a maid. They started a plant nursery, partly to earn enough to send their five kids to college. Dangermond met his future wife, Laura, in high school, and the two went together to Cal Poly, where Dangermond studied environmental science and landscape architecture. After they married, Dangermond went to the University of Minnesota to study urban design and in 1968 to Harvard, in part for the opportunity to work in a lab that combined computer graphics and spatial analysis and whose members had developed some of the first mapping software. "I had some notion of applying computer mapping to my profession," he says, "but frankly I was just very excited by the technology and curious how it could be made useful."

The Dangermonds moved back to Redlands and shortly after started what was then called the Environmental Systems Research Institute. It began as a consulting company inspired by the Harvard lab, and comprised the Dangermonds, a part-time programmer, a data specialist and a secretary. As the sizes of his contracts grew, Dangermond decided to start building generic tools with better capabilities that would allow his customers to do their own mapping and analytics. Esri shipped its first product in 1982. "Our whole business changed," Dangermond says. That product, ArcGIS, is still Esri's flagship.

Today 2,300 of its 3,500 employees work out of the Redlands campus, much of it landscaped by the Dangermonds. With no other significant tech company in the area, its culture is definitely quirky. Employees are paid hourly, which Dangermond says most employees like, as it gives them flexibility. Some employees, who spoke on condition of anonymity, bristled at that notion. Many employees have been there for decades, but some say workers who don't fit in get spit out quickly. There are few of the perks of Silicon Valley: Even Dangermond pays for his own meals at the cafeteria.

The best place to understand Esri's global impact is not in Redlands but in San Diego, where the company holds its big customer conference every summer. Last year's gathering took place on an unseasonably muggy day in July, and as Dangermond took the stage at a packed San Diego Convention Center, it was clear this was his event: He was keynote speaker, host and emcee. The audience of 16,000—roughly triple the crowd that assembles for Apple's World Wide Developer Conference or Google's I/O event—hailed from Sweden, South Korea, Idaho, Indiana, Botswana and Brazil, all of them there to hear a man they uniformly consider a legend. Dangermond invited guests onstage to evangelize about the power of Esri's software to fight disease, streamline decision making and respond to natural disasters. The year's theme was "applying geography everywhere," and time and again Dangermond told his rapt audience some version of "We are entering a period of geographic enlightenment."

Heady stuff, to be sure, but its meaning is more prosaic. Maps, once the domain of specialists, are being democratized in the cloud-connected era, and Esri's software is starting to spread far more widely inside organizations. Walgreens has been using Esri since 2000 to decide where to open new stores but in the past few years has released its custom-built WalMap to employees so they can check on store-by-store sales, market share and competitor locations. Walgreens increased the number of internal users of its mapping apps tenfold in the past few years, says Jillian Elder, director of enterprise location intelligence. At Stanford University, researchers in virtually every field are increasingly using Esri tools to, for example, predict the impact of global warming on butterflies in Madagascar or study the incidence of certain cancers near Superfund sites. "There's been an explosion of people who think of their research in geospatial terms," says Julie Sweetkind-Singer, Stanford's assistant director of Geospatial, Cartographic and Scientific Data & Services. Examples like that have Dangermond bullish that a lot more people are seeing things his way. He describes the opportunity succinctly: "Over the next five to ten years we can grow this an order of magnitude."

FINAL THOUGHT

"A map does not just chart, it unlocks and formulates meaning ... between disparate ideas we did not know were previously connected." —**REIF LARSEN**

GET THIS

A REALLY BIG SHOW

So you'd like to enjoy IMAX-quality movies without leaving the house, but your "home theater" is a converted laundry room with a couple of La-Z-Boys? Pick up the new MiniBeam PF1000U from LG ($1,097.99; lg.com), an "ultra-short-throw" projector that can put a glorious 100-inch image onto a wall from just 15 inches away. (Even at 5 inches from the wall you can get a 60-inch screen.) Video plays in full 1080p HD, but your room needs to be dark, dark, *dark* for optimal quality. MiniBeam comes with integrated speakers, Wi-Fi, Bluetooth and smart-TV software and apps, so you can start streaming right out of the box. Blackout curtains sold separately.

Recycle Your Rockets

BY ALEX KNAPP

Jeff Bezos' spaceship company, Blue Origin, hit a new milestone in January, successfully landing the rocket that sent its New Shepard capsule into suborbital space—the same rocket the company had launched and landed in November. Not to be outdone, Elon Musk's SpaceX in December successfully landed its Falcon 9 rocket after it launched 11 satellites into orbit, a much harder task.

The recyclable space race is on. Until the 1980s little that was launched ever came back, save for those tiny astronaut capsules. The Space Shuttle brought recycling to a new level, but its refurbishment was so labor-intensive, requiring the inspection of every ceramic heat tile, that NASA saved far less.

The new space race aims to make reuse a core cost-saver: SpaceX claims that reusability can help reduce launch costs from a current $61 million down to about $5 million to $7 million. (At between $40 million and $50 million, a new Falcon 9 first stage is by far the biggest part of SpaceX's launch budget.) Richard Branson's Virgin Galactic is developing reusable cargo vehicles. So is the Sierra Nevada Corp., which just won a key NASA contract to ferry cargo to the International Space Station using its Shuttle look-alike, Dream Chaser. That spaceship can be used at least 15 times and at a far lower cost than the Shuttle, thanks to a smarter design and less labor to refurbish it.

Reuse is not guaranteed to save money. Moving rockets around to be inspected, refurbished and refueled adds costs. And reserving fuel for the guided landing adds weight that could otherwise be allocated for revenue-generating cargo. But even halving launch costs would be a big deal for SpaceX and the industry—opening the door to more startups and allowing bigger players to reinvest in R&D what they would have spent on launches. F

The Cost Of Recycling Rockets

TRANSPORTATION: Moving the rocket from where it lands to the refurbishment site costs money—even if you're using robot ocean barges, as SpaceX intends.

INSPECTION: The industry is now smarter about designing for reuse. With the Space Shuttle every heat-shield ceramic tile was visually inspected and replaced if necessary.

REFUELING: $200,000, according to SpaceX. Some capacity must always be reserved for additional fuel and hardware during the landing. The cost is baked into the $61 million launch price.

PARTS: Even with flawless missions, wear and tear will require replacing lots of parts.

The first stage of SpaceX's Falcon rocket (everything below the red mark) can land on its own and be reused.

GUARDIAN

EMPOWERING THE WORKFORCE OF THE FUTURE

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Top RIGHT: Tiffany Dufu, Levo League; Ami Kaplan, Deloitte. Middle LEFT: Deanna Mulligan, Guardian. Middle RIGHT: Moira Forbes, Forbes Media; Deanna Mulligan, Guardian; Leah Johnson, LCJ Solutions; Jeanette Volpi, Guardian. Bottom LEFT: Sheena Wright, United Way of New York City; Priya Agrawal, Merck for Mothers; Carrie Hammer, Carrie Hammer; Carrie Schwab-Pomerantz, Charles Schwab Foundation. Bottom RIGHT: Moira Forbes, Forbes Media; Deanna Mulligan, Guardian.

The Renaissance Woman

When Natalie Shaheen couldn't find classical furniture to suit her regal tastes, she founded Josephine Homes so others could live like kings and queens.

BY KATHLEEN CHAYKOWSKI

Sitting pretty: After a successful career as a tech executive Natalie Shaheen saw a golden opportunity for an Italian-made home furnishings business.

The Josephine Homes showroom may be in a design building near San Francisco's SoMa but once inside visitors feel as if they are in a glimmering Italian palazzo. Carved, white-painted wood frames the entrance, along with a Romanesque Carrara marble statue and stately porcelain sconces. The ornate decor is made the way the 13-year-old luxury-home design firm creates all of its pieces: by hand in Italy.

Founded in 2003 by former engineer and tech executive Natalie Shaheen, Josephine Homes maintains a network of artists and artisans in Italy to design the interiors of houses and estates across the world. The collection includes everything from handmade furniture and ceramics to frescoes and hand-blown glass light fixtures. Many pieces—which range from about $2,000 to $150,000—shimmer with Swarovski crystals or have gold-leaf detailing that looks as if it came from Versailles. There are even painted ceilings for those who want to add a touch of the Sistine Chapel to a bedroom.

Shaheen describes Josephine Homes' aesthetic as a mix of Renaissance, Empire and Neoclassic but with an American twist. The style is not an exact imitation of those forms but a fusion with contemporary materials and flair. The collection is ultimately intended to be practical and durable.

One of her company's largest sales was a $1 million project in 2013 to design and furnish a five-bedroom mansion in Shanghai. And if Shaheen doesn't have a particular piece that a customer is looking for, and it fits into the aesthetic, she will have it designed. Like Napoleon's first wife, for whom the company is named, Josephine Homes believes in indulgence. "She practically drove him broke," Shaheen says with a smile. "She couldn't say no to beautiful things."

The 55-year-old Shaheen grew up in Tehran, Iran and moved with her family to the Bay Area at 18. Shaheen studied literature at the University of California, Berkeley before

GABRIELA HASBUN FOR FORBES

earning a degree in computer science at San Francisco State University. She taught computer science for several years and spent nearly two decades as an engineer and manager at a number of tech companies, including a three-year stint as director of marketing at Oracle.

But in 2002 she was ready for her corporate life to be history. Having spent almost two years furnishing a house with her husband, Rafat, Josephine Homes' acting CEO, the couple was dissatisfied with the level of craftsmanship available in the Bay Area and with the service from designers. So the pair went to Italy to find handmade furniture for their residence. Shaheen loved the process, and when their house was complete, she received so many requests from friends and family to help furnish their homes that she opened her own design and furniture company the following year.

Her passion has paid off. Josephine Homes surpassed $5 million in revenue last year, more than a 27% increase from 2014. The company became profitable in 2007 and says its profit margin grew by 4% per year on average over the last five years. Dedication aside, Shaheen attributes much of the success to being lean. She has always been Josephine Homes' only full-time employee, although she works with 15 or so part-time or project-based employees. She has also developed a vast network of more than 150 artisans, workshops, factories and designers in Italy. Shaheen says her affinity for technology has helped grow the business. She launched a company website in 2003, and she and her husband built the business' models for tracking financials and inventory. The two also apply their engineering skills to ensure the structural soundness of their furniture and the logistics needed to install them, such as suspensions for ceiling domes.

But building a luxury design business has not been without its setbacks. When Josephine Homes debuted, its aesthetic was too broad, which hampered sales. So in 2005 Shaheen shifted the focus to Italian-made pieces. Following the 2008 financial crisis, when other furniture makers responded by making cheaper pieces, Shaheen poured even more money into the company and dropped her midmarket products to focus on higher-end pieces. In 2008 she shifted her sales model when Josephine Homes opened the San Francisco showroom to customers in addition to designers.

One client, Amy Rees Anderson, founder and managing partner at angel investment firm REES Capital, purchased furniture from Shaheen in 2013 for her home near Salt Lake City. Besides appreciating the quality of the pieces she designed with Shaheen, Anderson admires the company's revenue and considers the growth "incredible" given Josephine Homes' petite staff.

"I'd invest in her all day long," Anderson says, noting that Shaheen offered a level of service that she couldn't find elsewhere. "My fear if I were an investor is that her personal touch makes the difference. You have to figure out how to scale it."

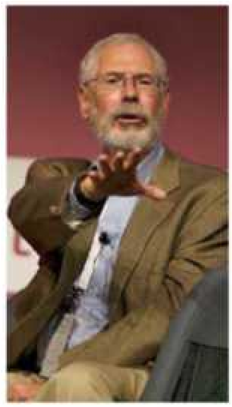
To grow the business even bigger and compete with larger companies such as Francesco Molon, Shaheen has plans to expand her U.S. presence. She aims to open her first retail store in San Francisco as well as showrooms in Los Angeles, New York and Dallas over the next five years. She is also considering venture capital funding for expansion.

But there is one aspect of her business she is determined not to change. "We don't mass-produce, and we don't want to," she says plainly. "These pieces are our creatures, and we want each one to have a personality. You're living with art." ✱

FINAL THOUGHT

✱ *"Simplicity is the ultimate sophistication."* **—LEONARDO DA VINCI**

MARGIN PROPHET



LEAN AND MEANINGFUL

AFTER EIGHT TECH VENTURES **STEVE BLANK**, WHO'S CREDITED WITH LAUNCHING THE "LEAN STARTUP" MOVEMENT, TURNED TO TEACHING ENTREPRENEURSHIP AT SOME OF AMERICA'S TOP UNIVERSITIES.

IF YOU WERE STARTING A COMPANY TODAY, WHAT TYPE WOULD IT BE?
Something meaningful that changes the world.

WHAT INDUSTRY IS MOST IN NEED OF CHANGE?
They're all in need of an entrepreneurial overhaul. Young entrepreneurs need to be fearless and have no respect for the status quo.

IS THERE ONE WAY YOU SEE YOUNG ENTREPRENEURS WASTE THE MOST MONEY?
Being the 15th-whatever app in social media is kind of nice, but having the nonconsensus idea that turns into Airbnb or Uber or SpaceX is more interesting.

WHAT ADVICE DO YOU GIVE YOUNG STARTUP FOUNDERS?
Don't believe your own b.s. It's real easy to confuse funding with success.

JASON MYERS FOR FORBES

The Zentrepreneur

With American tea consumption soaring, Ron Rubin's company, the Republic of Tea, could be worth $125 million. He says he's not selling.

BY STACY PERMAN

Sitting amid a slew of colorful tea canisters, Ron Rubin, executive chairman of the Republic of Tea, hits the delete button on his computer. Then Rubin hits it again and again, going through his regular ritual of dismissing the many e-mails he receives from private equity firms and investment banks, most expressing interest in acquiring his specialty tea company. "My answer is no answer," he says.

It's easy to see why many find the company alluring. American tea consumption is taking off, with domestic sales jumping from $2 billion in 1990 to nearly $11 billion in 2014, according to the Tea Association of the USA. In 2012 Starbucks acquired Teavana, which had revenue of $168.1 million and 300-plus salons, for $620 million. "We believe the tea category is ripe for reinvention and rapid growth," said Starbucks CEO Howard Schultz at the time. And last summer Montreal-based DavidsTea went public with revenue of $142 million. On its first day of trading the stock rose 42% above its offering price, giving the company a valuation of $634 million.

Rubin has been told other specialty tea companies are selling for more than five times revenue, so the Republic of Tea, which topped $25 million in revenue in 2015, could be worth as much as $125 million. But he says he's not interested in selling. An effusive 66-year-old, he recently doubled down on keeping his company independent, executing a plan to turn over the reins to his son Todd, 35. "I wanted this not only to remain a family business but also a genera-

Eschewing debt, Rubin says, allowed him to grow during the recession.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tional business," says Ron, who has started a new venture, a Sonoma winery, and says he considers himself a "zentrepreneur," explaining, "An entrepreneur creates a business; a zentrepreneur creates a business and a life."

Rubin purchased the Republic of Tea in 1994, when it was just two years old, from a group of owners including Mel and Patricia Ziegler, who had also founded (and sold) Banana Republic. Under Rubin, Republic promoted the complex and artisanal characteristics of tea as if it were wine. Combing the tea-growing regions of the world for high-quality leaves, the company helped create a designer niche, introducing more than 300 then-exotic brews like Ginger Peach, Milk Oolong and Double Green Matcha. He also imbued the company with his idiosyncratic corporate sensibility. Both the corporate headquarters in Novato, Calif. and its warehouse, packing and distribution facility in a nondescript industrial stretch of Nashville, Ill. were designed by a feng shui master and filled with soothing colors, curved walls, fountains and meditative spaces. Within those curved walls employees are known as ministers, retail partners as embassies and consumers as citizens.

When Rubin acquired the Republic of Tea, his biggest customer was the Nature Company, a national retailer that represented more than 30% of his business. Less than a year later the retailer dropped the account. After that he sought to diversify clients, and he has refrained from building Republic of Tea salons and from going after mass supermarkets like Wal-Mart or Kroger or offering private-label sales. And he has no interest in expanding internationally. "I imagine there is millions of dollars of revenue in all that," he says. Instead, he has stayed in the specialty universe and focused on the company's customer base of 10,000 domestic channels, including Whole Foods. "We want to do more business with the customers we have versus going out and getting more customers," he says.

Rubin's skepticism of growth is rooted in his aversion to debt, a lesson he took from working in his father's wine and liquor distribution business in Mount Vernon, Ill. When Rubin bought the Republic of Tea 22 years ago, he borrowed seven figures—he won't disclose the exact amount—but he proudly recites that it took him "six years, three months and 15 days" to pay off the loan: "I decided then that I wanted to remain debt-free and expand within the resources that come in from our sales."

Not taking on debt, Rubin says, has allowed him to sleep better. And during the Great Recession, when other firms laid off workers and froze product development, he hired additional regional managers, increased warehouse space and continued to develop new offerings. As a result, he says, "we maintained our growth."

Rubin has always hoped his company would remain family-owned and private. While Todd grew up in the business, he initially chose to pursue architecture. Then, nine years ago, when the job as East Coast regional sales manager opened up, he e-mailed his father about the position. "I was sitting in my chair," says Ron, "and it just about knocked me off."

Ron insisted that Todd interview, take aptitude tests and start in sales. "My dad told me I had to learn the business first," says Todd, "and to do that I had to learn sales and listen to our customers." Early on Todd had some misgivings. He was landing in a company without any business experience, in some cases leading employees who were twice his age and whom he had known since childhood. But his concerns eased over time as he managed two of the firm's biggest clients: Panera Bread and Whole Foods. He also brought in new clients such as Williams-Sonoma before moving into marketing and management at the firm's California headquarters, where he began to assist with strategic planning.

Last May the Rubins concluded the time had come. With the help of Robert Lefton, a St. Louis-based consultant, they completed a 36-month succession plan ten months early. "What I see a lot of times is that a business elevates the son or daughter too fast," says Lefton. "Oftentimes they feel it's demeaning for a child to sell, so they make them a V.P. and put them in the area they like the most. Ron doesn't think that way."

While Todd is eager to make his own mark, he says he has no interest in upending his father's vision, which means remaining debt-free and continuing to hit delete when those acquisition inquiries arrive.

FINAL THOUGHT

"Thank God for tea! What would the world do without tea? How did it exist? I am glad I was not born before tea." —**SYDNEY SMITH**

TRENDING

WHAT THE 70 MILLION FORBES.COM USERS ARE TALKING ABOUT. FOR A DEEPER DIVE GO TO **FORBES.COM/ ENTREPRENEURS**

COMPANY
PHAZON
Chris Houle hated how his earbud wires got tangled, so he launched an Indiegogo campaign for a wireless version, hoping to pull in $80,000. He raised $1.5 million.

PERSON
MATT RISSELL
When he realized his employees were cheating on their time sheets, Rissell created a solution: TSheets, an app that uses GPS to track workers' time, on and off the clock.

IDEA
GRATIS GRUB, GRUDGINGLY
Andrew Wang launched Lunchspread to help indie restaurants attract eaters by helping them give food away—and found it was surprisingly tough to get would-be diners to bite.

Fooling the Right People Some of the Time

Billionaire connections and yield-greedy investors almost propelled financier Leonard Tannenbaum into the three-comma club. Now he's mired in lawsuits and battling shareholder activists.

BY ANTOINE GARA

For hedge fund billionaire David Einhorn 2015 was a year to forget. Thanks to some glaringly bad investments—including big bets on SunEdison and against Amazon—his Greenlight Capital lost 20% and assets under management shrank by more than $3 billion as limited partners withdrew funds. Einhorn's personal net worth dropped by nearly half a billion dollars. But among the 47-year-old hedge fund star's numerous miscalculations, a small business development company named Fifth Street stands out as perhaps his most perplexing and embarrassing loss.

Last year stock of Greenwich-based Fifth Street Asset Management plummeted 76%, and Einhorn, one of its largest outside shareholders, lost $8 million. The stock's collapse was part of an investor drubbing in which more than $1 billion in market value was lost in a matter of months. Greenlight's loss, of course, is a drop in the bucket compared with the hedge fund's overall losses, but Fifth Street is no ordinary Einhorn holding.

Fifth Street Asset Management (FSAM) is essentially a publicly traded hedge fund. It earns fees of "2 and 20" for it services, but instead of stocks its specialty is managing the assets of BDCs, or "business development companies." These obscure financing vehicles make loans to small and medium-size businesses, often as part of bigger deals constructed by private equity firms. BDCs were sanctioned by Congress in 1980 as a way to raise money from public markets to lend to midsize companies. Like REITs they are required to pass 90% of their income to stockholders as dividends, and as such they tend to offer sky-high yields of 8% to 10% and above. Needless to say, they are the darlings of wealth managers and their income-hungry retirement clients. Post-2008 BDCs' assets have ballooned from $29 billion to $68 billion, according to SNL Financial.

Among hedge fund managers David Einhorn is considered to be Wall Street's BDC maven. Early in his career he gained enormous credibility by laying bare shoddy accounting practices inside these lending vehicles, and in 2002 he launched a short bet against one of the nation's largest BDCs, Allied Capital. He said Allied was slow to recognize losses in its multibillion-dollar portfolio and accused the company of chronically issuing stock to paper over its problems and fund an unsustainable dividend. Einhorn was vindicated when Allied collapsed, profiting by $35 million. The experience inspired his bestseller, *Fooling Some of the People All of the Time* (Wiley, 2008), considered the Bible of short-selling.

Fifth Street is now accused of pulling many of the same ploys that Einhorn exposed in his book.

The man behind the Fifth Street BDC empire is Leonard Tannenbaum, an ambitious financier and poker aficionado who has known Einhorn since the late 1990s and who serves on the board of numerous Greenlight funds.

Tannenbaum, 44, has been a man on a mission to get rich ever since he left Long Island in 1989 to attend Wharton's fast-track five-year B.S./M.B.A. program. In his first year there he met and dated Elizabeth Toll, then a high school student and the daughter of Bruce Toll, cofounder of the Toll Brothers home building company.

After graduating in 1994, Tannenbaum joined Merrill Lynch and quickly rose to assistant vice president but then left in 1997 to work at a small hedge fund. He also reconnected with Miss Toll and married her at Philadelphia's Ritz-Carlton Hotel on May 25, 1997. A year later he persuaded his new father-in-law to fund a hedge fund that would make investments in small businesses and split the profits, 90% to Toll and 10% to him. Tan-

ROBERT BABBONI FOR FORBES

nenbaum, then 27, set up shop in the basement of an office building in Mount Kisco, N.Y., and over the next several years Toll continued to finance or guarantee his son-in law's venture, eventually committing well over $100 million.

In the early days Tannenbaum and Toll made big profits, but in time some of their investments became troubled. In 1999, for example, Tannenbaum decided to make a big move into the market for Beanie Babies by taking control of CollectingNation.com. Unfortunately Tannenbaum was late to the stuffed-animal asset bubble. His fund ultimately lost $3 million after Ty Inc., the maker of Beanie Babies, decided to retire its popular plushies at the end of 1999. "Leonard thought they were going to be a big thing," laments Toll. "It went bad right away."

In 1998 his fund had made a $5 million loan to New World Restaurants Group, which was trying to buy Manhattan Bagels, a bankrupt chain. The bagel investment didn't yield much for Tannenbaum and Toll, but it had a bright side. Through it the young financier got to know David Einhorn better. His hedge fund also lent money to New World. Eventually Einhorn took control of the operation—renamed Einstein Noah Bagels after an acquisition—and replaced the board, except for Tannenbaum.

Greenlight earned an 18% annual return on the bagel chain deal over 14 years, and Tannenbaum gained a poker pal and mentor.

"We liked chatting on the drive up [to Mohegan Sun]," recalls Tannenbaum of his poker trips with Einhorn. "I didn't even know what a BDC was until I went to play poker with David. He said, 'You should do a BDC.'"

Einhorn attended Tannenbaum's kids' bar mitzvahs, and in 2012 , according to local press, he and Tannenbaum cohosted a $1,000-a-plate political fundraiser at Tannenbaum's 10,000-square-foot, ten-bathroom Greenwich mansion. The event, whose attendees included former NBA star Grant Hill and senatorial candidate Linda McMahon, was described as Tannenbaum's "coming out."

As Tannenbaum was hobnobbing with the 1%, his relationship with his Pennsylvania in-laws was deteriorating. According to court documents, by 2006 he had a deep "animosity" toward his father-in-law Bruce Toll, yet he proceeded to ask him for tens of millions more to finance a third fund, launched in 2007, which would be focused on so-called mezzanine lending (Toll wound up guaranteeing or lending some $90 million to Tannenbaum).

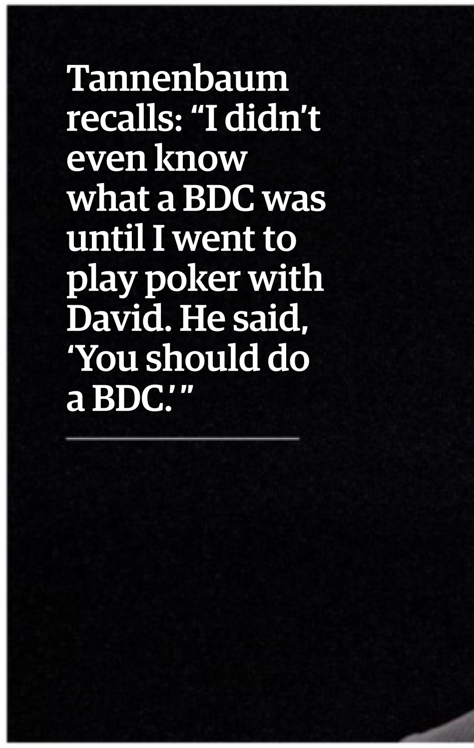
Then, as credit markets froze up in 2008, Tannenbaum made a bold move. He took his Toll-financed mezzanine fund—now called Fifth Street Finance—public that June. Filings show Greenlight owned over 6% of Fifth Street Finance before the initial public offering, and that stake jumped to 9.5% for Greenlight a day after the offering, making the fund its largest holder.

Fifth Street was one of only a handful of financial firms to IPO in 2008, and it emerged from the crisis flush and in a great position to profit from the wreckage, quickly becoming one of the fastest-growing BDCs.

As for his original benefactors, the Toll family, the relationship began to get even uglier. Tannenbaum separated from wife Elizabeth in 2009, and the couple divorced a year later. His father-in-law then sued Tannenbaum, alleging that he promised to pay his daughter half of the profits from the management of Fifth Street's latest fund. "He lied and fabricated the entire thing," says Tannenbaum, who prevailed in court. "He also started getting very jealous because I didn't need him for everything."

Tannenbaum was soon on to bigger and better things with billionaire buddy Einhorn and a new, younger, wife, Stacey, a director in Fifth Street's investor-relations department.

The next step for Tannenbaum was to take public his fee-reaping management company, Fifth Street Asset Management. This masterwork was designed to extract hedge-fund-style fees from his BDC empire, which included Fifth Street Finance (FSC) and Fifth Street Senior Floating Rate Corp. (FSFR), both primarily owned by retail investors. During 2013 and 2014 Tannenbaum ramped up the pace at which his BDCs made high-yield loans, ballooning assets and, as a result, fees. At the same time Tannenbaum assured investors that his portfolio was sound and even increased dividend payouts. As expected, fee income jumped for FSAM. In 2013, for example, FSC paid fees and expenses of $106 million to FSAM and other Tannenbaum entities, representing nearly half of FSC's $222 million in income that year. Fees went up even more in 2014, as FSC's assets nearly doubled from 2012 to $2.7 billion.



Tannenbaum recalls: "I didn't even know what a BDC was until I went to play poker with David. He said, 'You should do a BDC.'"

Greenlight Capital founder David Einhorn.

REUTERS/BRENDAN MCDERMID

In the fall of 2014 Einhorn dumped his shares in FSC, preparing to buy shares in FSAM, which was 94%-owned by Tannenbaum. By then Tannenbaum's BDC empire consisted of two sizeable publicly traded operations, FSC and FSFR, a hedge fund and a two senior loan funds. His firm had total assets under management of nearly $6 billion, and his public vehicles commanded a market cap of $1.8 billion. Tannenbaum had graduated from his basement office and now occupied sun-drenched 44,000-square-foot headquarters in Greenwich, with branches in Los Angeles and Chicago. FSAM's public offering, set for October 2014, would not only provide Tannenbaum with over $100 million in cash but also finally allow him to join his buddy Einhorn in the billionaires club.

Just as Tannenbaum was getting ready to count three commas in his net worth, market volatility and a negative writeup in *Grant's Interest Rate Observer* caused underwriters, including Morgan Stanley and Goldman, to cut FSAM's offering price. In October 2014 Fifth Street sold 12% to the public, raising $102 million, valuing Tannenbaum's stake at $684 million.

Shortly after the IPO Tannenbaum resigned from Fifth Street Finance (FSC), the BDC disclosed that a number of its loans had suddenly fallen to nonaccrual status. Dividends were slashed by 33% at FSC and then 25% at FSFR. Later FSC revealed an accounting mistake in which it admitted overstating its fee income by $12.9 million over the previous four years.

"FSC is the poster child for a poor-performing BDC," says analyst Troy Ward of Keefe, Bruyette & Woods. "It's been mismanaged for the benefit of the external manager."

Share prices of Fifth Street's BDCs have both fallen by some 30% in the last 12 months—40% if you include their performance during 2014, when Tannenbaum was issuing shares and making loans at a brisk pace. Tannenbaum's shiny new asset-management company now trades at $1.70, down from $17 at its October 2014 debut. All told about $1.2 billion in market value has evaporated in little more than a year.

One big frustration for FSC investors, amid its plunge, has been its share repurchases—or lack thereof. Although FSC suffers one of the industry's biggest discounts to NAV, a whopping 35%, it has bought back only about $20 million of the $100 million authorized by its board.

Tannenbaum and his BDCs have been targeted by two activist shareholders seeking board seats, including a campaign originated by fund manager RiverNorth Capital. They accuse Tannenbaum of using the public BDCs as a personal piggy bank to collect fees and are calling for his ouster. He is also facing a shareholder lawsuit, which accuses him of intentionally mismanaging his BDCs to prop up the fee streams (and value) of FSAM during its IPO process. Tannenbaum and FSC claim the allegations are meritless.

With his back against the wall and his FSAM stake now worth under $80 million, Tannenbaum has cut fees and has built up an 8% stake in the depressed shares of FSC, the BDC he originally created in 2007.

"The portfolio is working, and the strategy is working," insists Tannenbaum. "I think David would tell you that we did the best we could with our hearts and our understanding during this environment."

Einhorn declined to comment.

FINAL THOUGHT

"It is the mark of the mind untrained to take its own processes as valid for all men, and its own judgments for absolute truth." —**ALEISTER CROWLEY**

TRENDING

WHAT THE 70 MILLION FORBES.COM USERS ARE TALKING ABOUT. FOR A DEEPER DIVE GO TO **FORBES.COM/INVESTING**

COMPANY
EXXON MOBIL
The oil giant is ceasing share buybacks to stock up on cash. Is a big deal on the horizon?

AKIO KON/BLOOMBERG

PERSON
HARUHIKO KURODA
The Bank of Japan boss cut interest rates to negative territory, roiling global markets. Will its commercial banks pick up lending?

IDEA
ALPHABET VS. APPLE
Google's parent and the iPhone titan are dueling for the title of world's largest market cap, trading the crown back and forth in a turbulent market.

WHY MY LOSERS MAY BE YOUR WINNERS

AS I WRITE, THE STOCK market has had its worst start to a year since 2009. Nineteen ninety-eight was similarly bad. With it, sentiment and market commentary have turned increasingly dour. Note that in both 1998 and 2009, markets went on a wild ride, but the S&P 500 ended up 28% and 20%, respectively.

Last month I said I expected good things in 2016, not necessarily gangbusters. But I'm not disheartened by any few weeks. Markets are volatile—always have been.

Unless you expect a major bear market, note that when returns have been blah one year they've been good to great the next. In 2015 the world market was slightly negative. The S&P 500 with dividends was up 1.4%—a blah year. But blah years—meaning up or down less than 5%—have been followed by positive years over 75% of the time, with gangbuster 25% average returns.

There are those who say, correctly, that when things start as weakly as they have this year, it's historically been a coin toss as to what happens next. Yet what they miss is that there have been too few instances of very bad starts (by my count, only four) for this to be meaningful. Things aren't nearly as bleak as many fear they are.

What was bleak? The results of my 2015 stock picks. Calculated by FORBES, taking a hypothetical 1% brokerage commission haircut, my basket lagged the S&P 500 (without any brokerage haircut) by 5% equal dollars invested. This is the seventh year out of 20 that my picks have lagged and the third year in a row. Double ugh! As usual, over half of my picks were foreign, and for the third year foreign lagged. But that's no excuse. Fourth time is the charm. I remain optimistic and particularly like some of my worst-performing 2015 picks, such as the following:

MARKETS ARE VOLATILE—ALWAYS HAVE BEEN

I picked **WESTERN DIGITAL (WDC, 49)** and **SEAGATE TECHNOLOGY (STX, 32)** on Apr. 13 at 100 and 56. WDC was my absolute worst performer. But these two should work out in time, dominating hard disk drives, which are central to cloud computing and must thrive if society is to as well. Hang on or buy. Meanwhile, STX is at 80% of annual revenue and 12 times analysts' 2016 consensus earnings estimates, with a 7% dividend yield. WDC is at 80% of annual revenue and nine times 2016 consensus earnings estimates—with a 4.1% dividend yield.

April wasn't good. That's when I also recommended **BANCO SANTANDER (SAN, 4.1)** at 7.4, my second-worst pick. It's now a bottom fisher's delight: half of what it was a year ago, half its January 1998 price, a third of its value ten years ago and 20% of its peak price. It's hardly followed among analysts—I like that—and surrounded by endless fears: of Spain's weak housing, emerging markets exposure, Botín family nepotism at the top, a far-flung global operation that isn't easy to pigeonhole (and manage)—you name it. But it's well-managed, relatively stable and cheap at half book value, seven times my 2016 earnings estimate and one times annual revenue, with my estimate of a 5% dividend yield this year.

GILEAD SCIENCES (GILD, 87) isn't so cheap. And the world is hostile now to high-priced proprietary life-and-death drugs. But its hepatitis C drugs are working and selling well. It continues to lead (albeit with pressure from GlaxoSmithKline) in HIV/AIDs drugs. And it's got a nice pipeline. As this market turns around, so should Gilead.

France's **SCHNEIDER ELECTRIC (SBGSY, 11)** may be a pink-sheet stock (thinly traded, so be careful buying), but it's an industrial giant, with 170,000 employees, over $30 billion in sales and operations in most major nations. It's weighed down by oil price fears, since energy-usage management and efficiency is its prime market. But that market has continued to grow before, regardless of the price of oil. I think it will again. At 15 times my 2016 earnings estimate and 1.1 times revenue with a 1.2% expected dividend yield, it's relatively cheap compared with peers.

THOMAS KUHLENBECK FOR FORBES

MONEY MANAGER KEN FISHER'S LATEST BOOK IS *BEAT THE CROWD* (WILEY, 2015). VISIT HIS HOME PAGE AT WWW.FORBES.COM/FISHER.

MARKET CORRECTIONS BRING RICH YIELDS

JANUARY HAS BEEN a painful experience for almost all investors except maybe the Nassim Talebs of the world who feast on black swans. In my September newsletter I warned that 2016 would be a bad year for growth equities but a good year for income securities. I also recommended using year-end tax-selling or rebalancing to increase cash positions to 15%. The Fed's rate increase was a clear message that its stimulus of the stock market had come to an end—the surprise is how slow the reaction was. More surprising is that some think the Fed will return to prop up the market. I believe what you are seeing was planned. The Fed wanted to deflate the stock market bubble to avoid the obvious danger and has done so. It is foolish to think it will return to stimulus.

The virtue of corrections is that they are usually swift and overdone. This means the pain will, it is hoped, be short-lived, and the rest of the year may actually have a positive slope. Best of all, the selloff has created some attractive buying opportunities for income investors. There is little reason to fear that interest rates will rise substantially in 2016 given the dismal economic and political outlook, an outlook that is unlikely to change until the end of 2016. The big uncertainty gripping the stock market today is worry over another financial crisis, since the previous remedies created whole new problems without correcting much of what caused the last one.

DON'T WORRY ABOUT GAINS—FOCUS ON CASH INCOME. INVEST FOR YOUR COMFORT, NOT FOR YOUR HEIRS'

I am predicting a good year for income investing because current yields are high, having to do more with bad press than economic realities. Over the course of the year, as people realize that economic growth is unlikely and that neither the Fed nor the dollar's strength is an investor's friend, they will redeploy a larger portion of their capital into income-oriented securities. While you will hear a lot of happy talk in the media about growth stocks once the stock market turns around, all of their commentary will start with how much a stock or index is up from its 2016 low. Keep in mind that a recovery from January lows profits only those with cash. Everyone else is just feeling sighs of relief. The lesson here is: Don't double down on equity investments dependent on a growing economy.

There are ample income opportunities out there, and I recommend that those with cash in their account and income on their mind begin locking in some of these luscious yields. If you like a safe and steady yield, look at the **7% CORTS TRUST FOR BELLSOUTH (KTBA, 30)**. This A-rated preferred is not callable before 2095 and yields 5.8%. Slip down a few notches in ratings and you have **EPR PROPERTIES, (EPR E, 32)**, a REIT with a perpetual convertible preferred, rated BB and yielding 7%. The common yields 5.91%, so you have the option to convert once this dividend surpasses the preferred's.

Closed-end funds have suffered greatly in the January swoon, and one of the hardest hit is **VOYA INFRASTRUCTURE INDUSTRIALS & MATERIALS FUND (IDE, 11)**, which I recommended in December at a slightly higher price. The fund holds mainly blue-chip companies but trades at a 15% discount to its net asset value and yields 12.8%. It cut its quarterly dividend 10% in September, which accounts for much of the price drop since. Another closed-end fund, **TEKLA HEALTHCARE OPPORTUNITIES FUND (THQ, 15)**, is at a record low with a 9% discount from its NAV. It has not cut its dividend and yielded 11% last year after a year-end distribution.

To round out my selections is one of our mainstays, **FRONTIER COMMUNICATIONS (FTR, 4.9)**, a common stock with an uncommon dividend yield of 9.13%. It's a rural telephone, Internet and cable company, with a dividend that rose in 2015.

Every year I'm measured on how well my FORBES picks did in the previous year. Despite the market's concern in 2015 about interest rates, my picks managed to produce a 4.9% return versus a benchmark return of –1.6%. All of this return was from its cash income, which is where most income investors should be focused. My view: Invest for cash income and not for capital appreciation. There is another way to say this, but it's probably best if you don't read it aloud when your kids and grandkids are in the room: Invest for your comfort and not your heirs'. F

THOMAS KUHLENBECK FOR FORBES

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A BASKET OF KEEPERS AMONG SMALL-CAP TECH

LAST YEAR WAS PRETTY dismal for small caps, but had you purchased all 19 of my recommendations in FORBES you would have gained 4.7% after commissions versus –3.9% if you made similarly timed purchases of the small-cap-focused Russell 2000 Index. My worst idea was **ADEPTUS (ADPT, 50)**, which fell 51% amid negative press on freestanding emergency room companies. My best idea: holding **LIGAND PHARMACEUTICALS (LGND, 99)**, which gained 104% in 2015. Buying **INPHI (IPHI, 27)** returned 32%, while holding on to **DIPLOMAT (DPLO, 29)** and **CHINA MOBILE GAMES & ENTERTAINMENT** yielded gains of 25% and 22%, respectively. For 2016 my advice is to keep **ABIOMED (ABMD, 92)**, **INPHI**, **DEXCOM (DXCM, 71)** and **RUBICON (RUBI, 14)**. Sell the rest to make room for new ideas.

In 2016 growth in the U.S. will be steady but meager. Valuations, even after January's dismal performance, are cheaper than they were but still not cheap enough to go on a broad-based shopping spree for bargains. Strong returns will stem from finding individual companies, one by one, with growth opportunities that will beat overall economic growth and, just as important, exceed analyst expectations. To find innovative companies, there is no better pond to fish in than small-cap technology stocks, where the right product can be a game changer. These four stocks fit the bill, each with a niche opportunity positioned for growth far in excess of the broad economy:

LOOK FOR COMPANIES WHOSE GROWTH WILL BEAT THE ECONOMY AND ANALYST EXPECTATIONS

PEGASYSTEMS (PEGA, 23), of Cambridge, Mass. develops customer-relationship management software that automates client interactions across transaction-intensive enterprises. The company says 8 of the top 10 credit card issuers and 12 of the top 14 health care payers use its software to streamline business processes and automate upselling. In December 2015 Forrester Research named Pegasystems a leader in customer service for enterprise clients. With sales growth of 21% per year over the last decade the company has a strong track record in a market ripe for consolidation. Founder and CEO Alan Trefler owns 52% of the stock. Shares trade for a P/E of 26 times my forward earnings estimate of $0.91 per share.

Israel's **CYBERARK SOFTWARE LTD. (CYBR, 44)** provides IT security aimed at eliminating cyberattacks that have already breached the network perimeter. The company's platform is geared toward protecting privileged accounts, monitoring privileged activity and detecting and responding to malicious privileged behavior. The company says 40% of the Fortune 100 and 17 of the 20 top global banks are customers. Shares trade for 44 times my forward earnings-per-share estimate of $1.00, for 30% growth.

Headquartered in Carlsbad, Calif., **MAXLINEAR (MXL, 14)** is a fabless semiconductor company that designs chips for broadband-communication applications. The company is benefiting from demand for "fatter" data pipes to the home as service providers scramble to keep up with the insatiable demand for bandwidth. Through organic investment and synergistic acquisitions, Maxlinear has expanded beyond its traditional cable market, recently entering the satellite market. They're expanding next into wireless and high-speed data network infrastructure. Shares trade at only ten times my forward estimates of $1.55, with 70% estimated revenue growth.

INTEGRATED DEVICE TECHNOLOGY INC. (IDTI, 19) makes low-power and mixed-signal semiconductors focused on timing, power management and high-performance computing. These products are used for 4G wireless infrastructure, network communications, cloud data centers and power management for mobile devices. Longer term, the San Jose, Calif. company is betting on niche products, including chips for wireless charging, which could add $100 million to $200 million in sales in the next few years. A new management team came in about two years ago and has executed well, increasing sales and boosting operating margins to 29%. I also expect that a recent European acquisition, focused on the automotive business, will boost results. Shares were unfairly slammed after a mediocre earnings release on Feb. 1. At only 12 times my forward earnings estimate of $1.50 per share, the stock is cheap, especially considering cash of $2 a share.

THOMAS KUHLENBECK FOR FORBES

JIM OBERWEIS IS PRESIDENT OF OBERWEIS ASSET MANAGEMENT AND EDITOR OF *THE OBERWEIS REPORT*. FOR MORE INFORMATION VISIT WWW.FORBES.COM/OBERWEIS.

Features

FEBRUARY 29, 2016

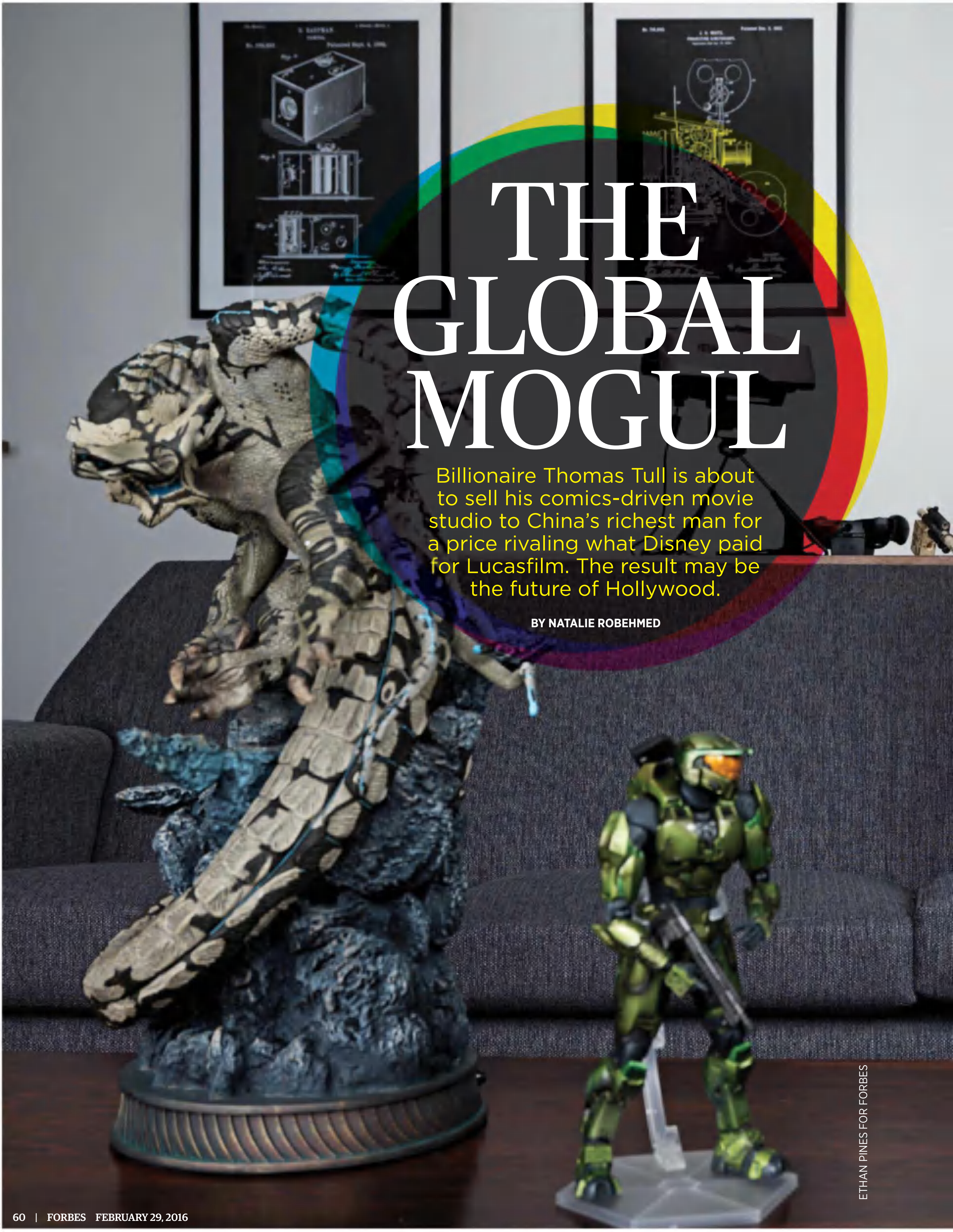
Former *Tonight Show* host Jay Leno is buying, holding and driving his way into "retirement." In addition to toiling over his car collection—including this rebodied 1937 Bugatti—he still performs 200 stand-up gigs a year. Rev up your retirement with Leno.
PAGE 68

ETHAN PINES FOR FORBES

THE GLOBAL MOGUL

Billionaire Thomas Tull is about to sell his comics-driven movie studio to China's richest man for a price rivaling what Disney paid for Lucasfilm. The result may be the future of Hollywood.

BY NATALIE ROBEHMED



ETHAN PINES FOR FORBES


DEAD
EYES
OPEN

While most of the country ground to a halt around Christmas, Thomas Tull, the billionaire founder of Legendary Entertainment, had never been busier. Or more stressed. He was smack in the middle of a deal to sell his studio to China's richest man, Wang Jianlin, and his Dalian Wanda Group. But Christmas is just another day in China, and various hiccups stood in the way of Tull and a $3.5 billion cash-out.

Pacing the floors of his massive home in the tony Westlake Village complex just outside of Los Angeles, he first had to explain the deal to his consortium one by one, a varied bunch that ranged from institutional giants like Fidelity and Morgan Stanley and Japan's SoftBank to individuals like billionaire venture capitalist Jim Breyer.

Then came the near-impossible task of minimizing taxes on both sides—every shift in the terms invariably caused repercussions for one side or the other.

Finally Tull had to navigate the Chinese regulatory system, which forbids foreigners from owning stakes outright in entertainment companies—a problem, since Tull, who would continue in his CEO role, wanted to hold on to his 20% or so stake of Legendary. In the end, knowledgeable sources told FORBES, Tull likely had to make do with phantom stock, a China-friendly workaround that would mimic actual ownership, giving him a yearly payout plus 15% to 20% of the profit if the company is sold. (Legendary would not confirm this arrangement.)

Such details were the culmination of a two-year process that started with a lunch at Wanda's headquarters in Beijing in late 2013. Legendary, which has co-produced blockbusters such as *The Dark Knight* and *Godzilla*, had recently partnered with state-run China Film Group to develop movies in the country. He gained access to a burgeoning market—it will surpass the U.S. next year as the world's largest—and a near-sure distribution channel in a place that permits only 34 foreign films annually. The previous year Wang had snapped up U.S. cinema chain AMC for $2.6 billion, taking the first step in what would become a string of international entertainment acquisitions to broaden the scope of his real estate conglomerate.

Almost immediately they began smoothing out personal differences—amid China's culinary riches, Wang served Tull and his "very narrow palate" grilled chicken and salad—and basking in their similarities, including the fact that they grew up poor (albeit 7,000 miles apart). "I liked that there wasn't a lot of flowery talk," says the bread-and-butter Tull.

That lunch coincided with his forging of profitable partnerships (Tull's humans-versus-monsters epic, *Pacific Rim*, pulled in 27% of its $411 million gross from China, much of it from Wanda's theaters) and led to small investments, as Wang took a nearly 2% stake in Legendary. Then came more culinary courtesies: When Wang came to Los Angeles, it was Tull who sucked it up, taking China's $29 billion man to a spicy Sichuan restaurant in the Century City Mall.

A positive dynamic had been set up. "At any business deal of size, it always seems like there are three mo-

DAVID YELLEN FOR FORBES

ments that you feel like there's just no way," Tull recalls. Yet by New Year's Eve Tull was able to call Wang with six fateful words: "I think we have a deal."

That deal is expected to close imminently. And when it does it will mark several Hollywood milestones. Five of the six major studios—20th Century Fox, Warner Bros., Paramount, Disney and Universal—have scored investment from China or formed joint ventures overseas in the last 18 months, but this will be the first complete buyout of an American movie studio. "Legendary is a gateway to cultural and financial alignment between the Hollywood moviemaking world and the rapidly expanding Chinese marketplace," Wang says.

Second, it will show that the comics-driven blockbuster formula can yield profitable exits even for companies that aren't named Marvel or DC. Third, it would validate the data-based *Moneyball* strategy that has been all the rage in Hollywood over the past decade but has looked rather stupid lately.

AMC MVP: China's richest man, Wang Jianlin, will soon count Legendary among his cinematic real estate.

The sale would also be a stunning triumph of dealmaking for the 45-year-old Tull. Disney paid $4.1 billion for Lucasfilm and the mighty *Star Wars* franchise and another $4 billion for Marvel and a character universe—the Hulk, Thor and Captain America—that collectively is the highest-grossing franchise of all time. What does Wang's $3.5 billion, which includes some $900 million in debt, buy him?

"It's not exactly clear what they are paying for, even at a premium valuation," said Dan Clivner, a Los Angeles-based partner at law firm Sidley Austin who specializes in mergers and acquisitions.

Legendary uses its money and production savvy to produce other people's franchises: Most of its biggest hits, whether *The Hangover* or *Jurassic World*, have been jointly produced with Warner Bros. or Universal, its most recent distribution partner, using intellectual property they own. It has had some success licensing properties—*Godzilla* is licensed from Toho—but that can't justify the valuation, either. Legendary boasts about the content it owns, but there's no way *Pacific Rim*, along with a small horror movie and three disappointments, can almost equal the value of *Star Wars*. Not even close.

Ultimately Wang seems willing to vastly overpay to get a controlling stake in a Hollywood entity, no small feat. China's second-richest man, Jack Ma, sources tell FORBES, has repeatedly been thwarted in his efforts to take over Paramount and other studios, versus making a minority investment. (His Alibaba Pictures cofinanced Paramount's *Mission: Impossible—Rogue Nation* last year.)

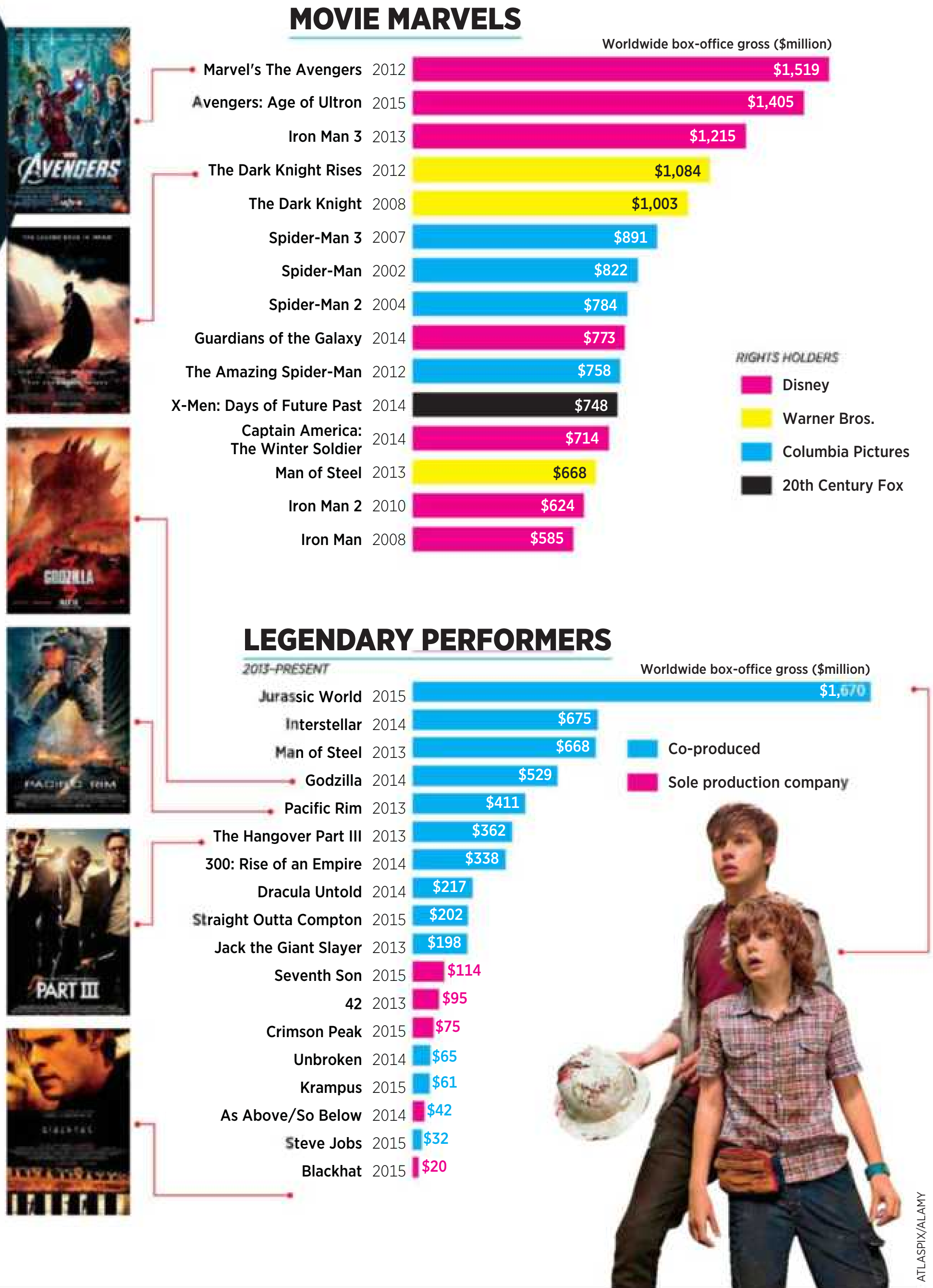
Wang is also betting on Tull himself. Rather than follow the century-old tradition of Hollywood-insider fleecing starry-eyed outsider, Tull won't cash out anything from the deal. While his investors will do magnificently, Tull is sticking with his phantom stock—he's betting on the future, on the same side as Wang. With Legendary at the center of seemingly every major movie business trend, understanding what Tull has built, and where he's going, provides an insightful microcosm of the future of Hollywood itself.

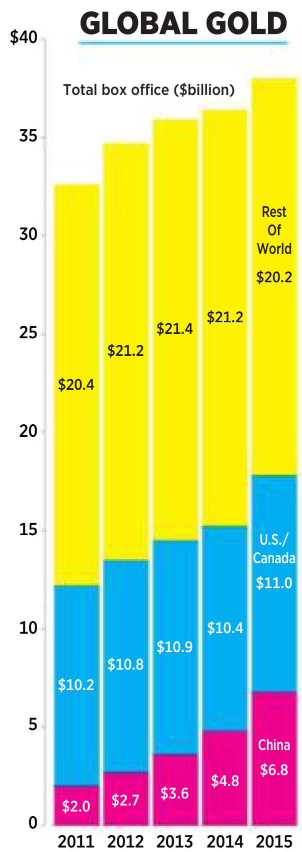
HOLLYWOOD'S GLOBAL MOGUL was raised by a single mom outside Binghamton, N.Y. Tull, who helped support two younger sisters by mowing lawns in the summer and shoveling snow in the winter, sought escape in fantasy and science fiction: Tolkien's *Lord of the Rings* trilogy and *Dune* were among his childhood favorites.

Tull mixed sports with his nerdy reading habits, landing a football scholarship to tiny Hamilton College

BOX-OFFICE UNIVERSE

Legendary's ticket-booth might is undeniable (bottom right), but it doesn't actually hold the rights to any of the highest-grossing comic books (right). Instead, it is betting big on another global superpower: China (below).





in upstate New York. It was here that he read Frank Miller's *The Dark Knight Returns* and *The Watchmen*, the latter of which Legendary would someday co-produce. And he continued to be entrepreneurial, selling T-shirts and signing up local businesses for ads in a directory he distributed to students.

Tull considered law school but was deterred by potential debt. So at 23 he started a chain of local laundries, called Smart Wash. Tull's twist: a computerized system that allowed him to flex the price of washes to attract customers during slow periods and maximize revenue during the Sunday rush.

"I've always known that I had to work for myself or at least have my own business," says Tull, who at 6 feet, with a squat head that disappears into his broad shoulders, still looks like a big-target wide receiver (in 2008 he fulfilled a childhood dream by buying a small stake in the Pittsburgh Steelers). "Struggling as a family financially, I grew up within the confines of constantly worrying [whether] the light is going to get turned off. I

think you can get drive from that."

That drive was industry-blind. In 1995 he moved from laundries to tax prep, rolling up 500 Jackson Hewitt franchises. Then came tech ahead of the original dot-com bubble, scouting deals for venture firm Southeast Interactive.

By 2001 he had moved on to media, joining a small Atlanta investment company, Convex Group, and working his way up to president. He soon started thinking about Hollywood. "It was the largest business I was aware of as an asset class or category that had no professional capital," Tull recalls. "Then I read that it was our country's second-biggest export."

Tull hired a data firm to gather years of information on film performances. After looking at the results, he figured that with enough capital it wouldn't be hard to build a film library—and a scalable business.

With great fanfare Relativity Media was simultaneously pursuing an algorithmically driven sweet spot of formulaic $30 million movies, anchored by a recognizable star and guaranteed foreign distribution.

Tull went the other direction. The sci-fi geek, whose Legendary office is strewn with comic books, deduced it was the $100 million-plus tentpole, fixed to a known franchise, that was the least risky. Tull also examined international growth numbers and saw a remarkable upward trend. Coupled with attractive margins in the DVD business at the time, blockbuster financing began to make financial sense.

Tull talked his way into a meeting with Warner Bros., which provided the infrastructure to distribute and market films globally that a newcomer like Tull could not do. A deal template emerged: Legendary would cofinance and co-produce 25 films it cherry-picked from the Warner Bros. slate, vouching for approximately 50% of each movie's budget. This provided Warner Bros. with capital and offset the risk of expensive films that could affect quarterly earnings. Legendary would also pay Warner Bros. an estimated 10% distribution fee. In exchange Warner Bros. and Legendary would then share any profits proportionally.

A good hedge for Warner Bros. provided a great opportunity for a Hollywood neophyte. All he was missing was the money. "The most difficult experience of my career, of my life by far, was raising the initial capital," says Tull of the year he spent attempting to gather the $500 million he had pledged. Horror stories of screwy Hollywood accounting and investors who had lost money on movies preceded him. "The meetings lasted about 15 minutes on average, in which they'd say, 'No way in hell. You can take a beverage on the way out.' "

"PART OF TULL'S SECRET SAUCE WAS ANALYTICS. BY USING SOCIAL MEDIA SENTIMENTS TULL CLAIMS HE CAN SHAVE 15% TO 20% OFF HIS MARKETING COSTS."

After what Tull calls an "impassioned" final plea to a small round of investors and a commitment to invest his own money, coupled with a credit line from JPMorgan, Legendary in late 2004 managed to score startup cash from ABRY Partners, Bank of America, M/C Partners and Columbia Capital.

They were taking a risk. When blockbusters work, they gross over $1 billion, spawn sequels and score millions more in merchandising and theme park tickets. When they don't, it's an expensive bomb that can ruin a balance sheet. Legendary quickly went on a winning streak, starting with *Batman Begins* and *300*. Eventually it was putting up 50% of the budget for 50% of profits on movies like *The Dark Knight Rises*, which grossed $1.1 billion on a $250 million budget, and then taking a 75% stake on movies such as *Godzilla*, which tallied $529 million on a $160 million price tag. Global results were always top-of-mind. The nonstop action and infrequent dialogue in most Legendary blockbusters help them perform remarkably well overseas, particularly in China, where fewer words mean fewer reasons to upset the censors.

Part of Tull's secret sauce was analytics. But whereas Ryan Kavanaugh and his Relativity Media, the other *Moneyball* upstart backed by Wall Street cash, swung for singles, claiming its computers could predict failure or success based on plotlines, genres, stars and release dates, Tull went for the fences and leveraged his data to affect things within his control. Specifically, determining how he could shave costs and boost audiences on blockbusters, where the marketing budget often approaches production costs.

Legendary says that even before a movie has the green light it compiles customer profiles to find audiences who are at least 40% likely to see a film and advertises only to them using cheaper digital ads. Boasts Tull: "We went live on *Godzilla* and spent less money on marketing than we were slated to. We opened $35 million higher than tracking had us [at]."

By using aggregated social media sentiment to hone its targeting, Tull claims he can shave 15% to 20% off his marketing costs, which often translates into eight figures per picture.

By 2013 an emboldened Tull moved Legendary into completely producing—and owning—its own films, drawing in the likes of venture capital heavyweight and early Facebook investor Jim Breyer, who served on the board of Marvel and invested more than $100 million in Legendary through separate vehicles, including personal funds. Says Breyer: "Thomas had an incredibly long-term view of the business and a

passion for how analytics and technology can help leverage what has been a chronically high-fixed-cost-structure business."

But owning properties forced him to shift from his comic book tentpoles—and the results showed. Legendary's five solo films include three stinkers. After a so-so debut with Jackie Robinson biopic *42*, the fantasy *Seventh Son* tallied $114.1 million on a $95 million budget. *Blackhat,* a 2015 crime thriller, grossed $20 million on a $70 million budget, while the Guillermo del Toro-directed *Crimson Peak* grossed $74.7 million on a $55 million budget. (The middle two are conveniently absent from Legendary's website library.) Its biggest independent hit was its second release, *As Above/So Below*, a horror film that grossed $41.9 million on a $5 million budget. Considering theaters pocket approximately 50% of box office receipts, the Legendary slate has performed quite poorly. "It's very hard to build a new thing," says Tull.

"THE CHINESE GOVERNMENT FEELS STRONGLY THAT THEY NEED THE ENTERTAINMENT BUSINESS."

Relativity Media discovered that the hard way, as Kavanaugh's data sets couldn't prevent flop after self-financed flop—or a high-profile trip to corporate bankruptcy that has been Hollywood's most buzzed-about soap opera over the past eight months. Tull's bigger cofinanced winners (*Jurassic World* alone likely made Legendary $200 million) and smaller roster of flops allowed him to avoid that fate. And his nerdy competence—and China focus—contrasts well with Kavanaugh's bluster. That goes a long way to explaining the $3.5 billion difference. Calling Tull "the perfect partner," Wang says: "Together we can open doors for new talent, stories and audiences to come together in this new world."

TULL GOT A GLIMPSE OF LEGENDARY'S future last June when he visited Qingdao, a coastal city halfway between Shanghai and Beijing. There Wang is building the world's largest film studio, an $8.2 billion property that sprawls across 494 acres and is set to open in 2018.

Such massive investments have the blessing of the powerful Chinese government. China's former leader Hu Jintao publicly discussed using culture "as part of the soft power of our country." And Hu specifically meant culture "not as cultural exchange or awareness but as a business," says Dominic Ng, chairman and CEO of East West Bank. "The Chinese government feels strongly that in order to portray a better image, they need the entertainment business—the culture business—to get stronger." According to a *New York Times* exposé last year, Wanda has close ties to senior Communist Party leaders; Wang denies the connections.

Wang's holdings also include Wanda Cinema Line, one of China's largest movie theater chains, and Hoyts, an Australian cinema group. "Wanda is trying to create a global vertically integrated motion picture company," says Gordon Crawford, a retired investor who put money into Legendary in 2012. "To do that [Wang] needs the capability to make tentpole movies that play globally."

The first full-blown Wanda/Legendary co-production will test that in a major way. Even as the Wanda studio is being finished in Qingdao, filming is under way there for *The Great Wall*. Shot entirely in China, the $135 million fantasy-adventure film is helmed by Chinese director Zhang Yimou and stars both a U.S. lead (Matt Damon) and a Hong Kong heartthrob (Andy Lau). The story, about an army making a last stand for humanity against aliens on the Great Wall, came courtesy of Tull, who typed up an outline six years ago, before bringing in *World War Z* writer Max Brooks to polish the story.

"As a kid I remember reading that the only man-made object that you can see from space was the Great Wall," Tull recalls. "I remember thinking, what would compel these people to build something that audacious? Then, of course, because I have a geeky sensibility, it was like well, what would they build to keep out?"

Though Legendary is co-producing the movie with China Film Group and China's Le Vision Pictures and sharing financing with others, it's an expensive bet for an unproven hybrid. FORBES estimates it will have to gross at least $350 million worldwide to break even; *Monster Hunt* became China's top-grossing film ever last year with $391 million.

That's just the beginning. Tull plans to develop his own movies and license still more high-profile properties, including *Warcraft*, licensed from the Activision Blizzard videogame; *Hot Wheels,* licensed from toymaker Mattel; *Mass Effect*, licensed from the BioWare shoot-'em-up game; plus three more films in a King Kong and Godzilla "monster-verse." Along with a small TV business and virtual reality wing, Legendary has launched its own comic book publishers to source movies; it recently issued a graphic novel tie-in to 2015's *Krampus,* but a bestseller has yet to appear.

And with Disney opening a $5.5 billion theme park in Shanghai in June, with Universal Studios a few years behind it in Beijing, Wang says he has theme park aspirations for his new properties.

Taken together, there's the potential for major studio scope, albeit one where the Qingdao facility is as important as Legendary's office in Burbank. Let it be noted: Tull is taking Mandarin lessons.

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Rev Up Your Retirement

EDITED BY JANET NOVACK

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Deep inside a football-field-size garage near the Burbank Bob Hope Airport, Jay Leno crouches over a silver 1957 Corvette, spilling oil into the car's exposed engine—a labor-intensive morning activity typical of his "retirement." Since leaving his late-night-TV gig two years ago, Leno has been evenly pouring time into live standup comedy and his collection of 267 cars and motorcycles, displaying many on his CNBC show, *Jay Leno's Garage*. For other people approaching an active retirement, Leno's example is a perfect pace car. "I ended the *Tonight Show* on a Thursday night, and on the Friday I had three gigs in Florida," he says. "I'm not one of those people that sits around."

—Zack O'Malley Greenburg

JAY LENO WAS SHOT ON LOCATION IN BURBANK, CALIF. HE WEARS A SUIT AND SHIRT BY ERMENEGILDO ZEGNA AND SHOES BY SALVATORE FERRAGAMO. CREATIVE STYLE DIRECTOR: JOSEPH DEACETIS; HAIR & MAKEUP: FRANZ HAHN

JAY ON SHIFTING GEARS

"So many friends of mine, all they ever did was the TV show. When the TV show ends, suddenly their life ends, because that was their whole life. I was never that guy."

Moneyball Your Assets

This 11-step guide to drawing income in retirement could save you a bundle on taxes.

BY WILLIAM BALDWIN

Congratulations if you reach retirement holding a diversity of assets—tax-deferred IRA, Roth IRA, pension, Social Security and a taxable brokerage account. Also condolences, because it's hard to know which assets to use first when you need spending money.

Should you withdraw cash from your traditional IRA or sell appreciated stocks in your taxable brokerage first? You're going to have a tax bill either way, since withdrawals from that IRA and capital gains are both taxed. Which is the lesser evil?

Or what if the choice is between cashing in stocks that have gained and dipping into your precious Roth, the retirement account that is totally tax-free? The correct answer here is tricky; it depends on whether you are likely to be leaving money to heirs.

You are playing a card game with the IRS. You have some good cards and some bad cards in your hand. You need to know when to play each card in order to maximize your aftertax wealth.

We're assuming here that you have money in at least three of the five baskets listed above. Without a diversity of retirement accounts you're in a straitjacket. "The problem so many people have is that they save only in their [traditional] 401(k)," says Randy Kurtz, founder of Chicago money manager BetaFrontier. "In that case you can't do much."

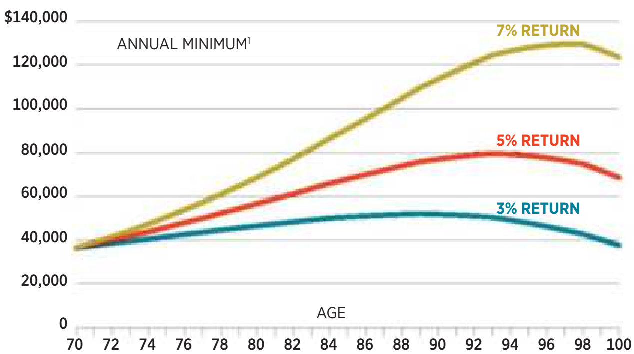
Moral: When you are young, build tax diversity. Have some taxable assets—namely, money invested outside retirement plans. Have some tax-deferred assets—namely, money in a traditional IRA or 401(k). Have some tax-free assets—those Roth accounts.

You build up a Roth three ways: by contributing to a Roth IRA, by opting to put some of your 401(k) contributions in a Roth 401(k) and by converting IRA assets. Direct contributions to a Roth IRA are permitted only when your income is below a threshold; the other two options are available to everyone. *(For Roth strategies see p. 82.)*

If you behaved yourself as a retirement saver you have choices as a retirement spender. In that case follow this 11-step guide to drawing income.

IRAS: THE MANDATORY WITHDRAWALS

THE AMOUNT THAT MUST BE TAKEN OUT AND TAXED IS LIKELY TO GROW OVER THE YEARS, EVEN IF THE RETURN ON THE INVESTMENTS IN THE IRA IS MODEST.

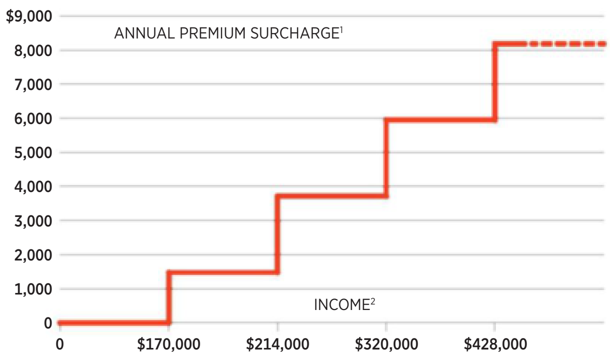


[1]PER $1 MILLION OF STARTING ASSETS.

1. DELAY SOCIAL SECURITY. You can start claiming anytime from age 62 and age 70. By delaying eight years you boost the monthly, inflation-adjusted paycheck by 76%. That's a good deal if you are healthy. It's a great deal if you have a younger spouse who stands to claim the survivorship benefit. For a spouse who doesn't have much of a benefit on his or her own earnings, the spousal payout (38% of your amount when you are alive,

TAX BY ANOTHER NAME

HIGHER-INCOME RETIREES ARE CHARGED EXTRA MEDICARE PREMIUMS—IN EFFECT, AN INCOME TAX SURCHARGE.



[1]COMBINED MEDICARE HOSPITAL AND DRUG PREMIUM SURCHARGE FOR A COUPLE. [2]ADJUSTED GROSS INCOME PLUS TAX-EXEMPT INTEREST, ON A JOINT RETURN.

assuming you have deferred your start date to age 70, and 100% after you are dead) is extremely valuable.

You probably don't realize how large the Social Security asset is. For a married taxpayer who has been paying the maximum tax for 35 years, the present value of a Social Security annuity beginning at age 70 is as high as $1.2 million.

Some people can't afford to wait; they need Social Security to live on at age 62. Some (such as single, sickly retirees) shouldn't wait. For the majority of prosperous retirees who are married to younger, lower-earning spouses, delay pays.

2. DON'T DELAY RMDS. Beginning in the year you turn 70½, you must take out an annual "required minimum distribution" from a traditional IRA. It's figured as an age-related percentage of the previous year's balance *(see chart, p. 70)*. You must also take RMDs from your 401(k) at 70½ (unless you're still working at the company and aren't an owner of it).

The penalty for taking too little is draconian (50% of the shortfall). So this much of your retirement income is foreordained.

3. TAKE NEXT FROM TAXABLE ACCOUNTS. Say you have $1 million in your IRA and $1 million in a brokerage account. You're 70 and just took out the $36,500 from the IRA that the government is making you take out. You need another $20,000 to live on. From which account should it come?

Matthew Kenigsberg is in Fidelity Investments' retirement think tank. Fidelity doesn't dispense tax advice, but it does send clients off to their CPAs with pointed questions about how to arrange their tax affairs. For that purpose Kenigsberg has constructed a hierarchy of retirement withdrawals. On it cash-outs from taxable accounts come ahead of everything but those RMDs.

This is counterintuitive. Dividends and long-term gains in the taxable account are taxed at low rates federally (probably 15% for you). IRA withdrawals are taxed at higher rates (let's say 28%). You'd think it would be smart to drain the 28% account first.

But there's a subtlety here. Deferring a withdrawal from the IRA doesn't just defer the tax on future earnings; it defers tax on the principal, too. This is equivalent to paying tax right now on the principal and then getting a complete exemption from tax on future earnings.

You're going to pay high tax on the current IRA balance no matter what. Consider that sum as already belonging to the IRS. On future investment earnings the IRA effectively offers a 0% tax rate, which beats out the rate on the taxable account by 15 points.

The full Kenigsberg hierarchy: Take RMDs from your tax-deferred IRA, then deplete your taxable account, then dip further into your tax-deferred IRA. Finally, play your trump card, the tax-exempt Roth account. Prosperous retirees who are thinking more about heirs than their own needs may need to modify this rule *(see No. 10, p. 81)*, but the ranking is a good starting point for your withdrawal plan.

4. SET UP A ROTH IRA. You pay income tax on employment earnings before the money goes into the Roth but owe no tax on either principal or earnings on the way out. You can also convert pretax traditional IRA money to a Roth by paying tax.

A Roth account is nirvana. There is no withdrawal mandate while you're alive. It makes a nice bequest. There are penalties for cashing too much of it in too soon, but they are aimed primarily at younger savers. Get some money in a Roth as soon as you have the opportunity. Later on, certain technical withdrawal rules make it useful to have had a Roth IRA, even one with a token amount, for at least five years.

5. SET UP A LINE OF CREDIT. You could use a securities portfolio as collateral. Ted Cruz evidently did.

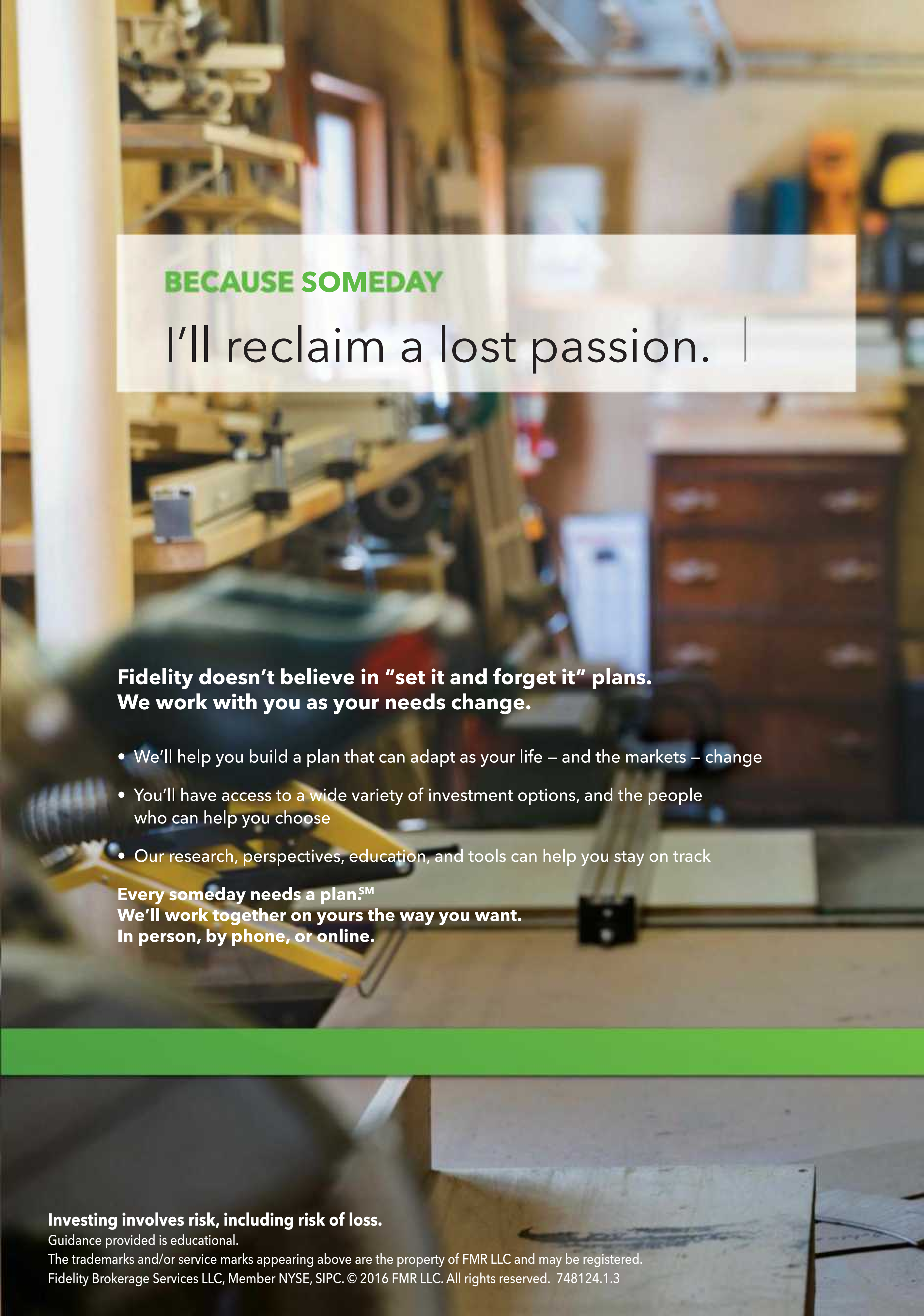
Arrange the credit line before you need to draw on it, advises money man Randy Kurtz. Credit buys you flexibility. There may come a time when you need a chunk of cash and the alternative sources—stock sold in a depressed market or withdrawals from a tax-deferred IRA—would cause pain.

Using securities for collateral? Don't take the broker's margin loan, which is aimed at traders and may carry a usurious rate (like 8%). Instead get a credit line against a part of your portfolio you don't trade. By pledging a lot of assets at Schwab (like $3 million) you get the bargain rates (like 2.7%) accorded to high rollers, even if the amount you draw down is small.

There are restrictions. Your col-

BECAUSE SOMEDAY

I'll reclaim a lost passion.


BECAUSE SOMEDAY
I'll reclaim a lost passion.
Fidelity doesn't believe in "set it and forget it" plans.
We work with you as your needs change.
• We'll help you build a plan that can adapt as your life – and the markets – change
• You'll have access to a wide variety of investment options, and the people who can help you choose
• Our research, perspectives, education, and tools can help you stay on track
Every someday needs a plan.SM
We'll work together on yours the way you want.
In person, by phone, or online.
Investing involves risk, including risk of loss.
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FERNANDO LUNA ARCE

30 PROMESAS Forbes

EL SECRETO DE UNA STARTUP MILLONARIA

Grupo Zmart, Sheló Nabel y Grupo MIA son tres empresas jóvenes que facturan, cada una, más de 300 millones de pesos. ¿Cómo escalar tanto en tan poco tiempo sin morir en el intento? Sus fundadores nos cuentan el secreto.

COORDINACIÓN: ANA PAULA FLORES, STEPHANIE LEWIS, VIRIDIANA MENDOZA, RUTH MATA

FRANCISCO Y CHRISTIAN SANDOVAL. Estos hermanos fundaron en 2010 Grupo Zmart, una empresa de recargas de tiempo aire que facturó más de 868 MDP el año pasado.

CHRISTIAN PODRÍA SER UN JOVEN COMO CUALQUIER OTRO: DELGADO, DE CABELLO RIZADO Y LARGO HASTA el hombro y tez blanca. Su aspecto casual, con la camisa desfajada, alude a ese estilo despreocupado que tienen los jóvenes tecnólogos de Silicon Valley. Al verlo en la calle, pocos imaginan que él es el protagonista de una de las grandes historias de negocios que se cuentan actualmente en México. Y es que con tan sólo 26 años, Christian Alejandro Sandoval Díaz es fundador y director general de una empresa que facturó más de 868 millones de pesos en 2015.

"A los 17 años tuve la oportunidad de trabajar para una empresa donde trataba de aprender todo lo posible para en un futuro poder independizarme", platica Christian. Dos años después fue nombrado director del área de TI, en donde desarrolló el ERP de la compañía. "Cuando trabajaba en la empresa vi que había un espacio en el mercado, una necesidad, entonces vi la oportunidad de desarrollar algo para satisfacer esa necesidad y me independicé".

Luego de trabajar por varias noches, Christian creó una plataforma para realizar recargas de tiempo aire. "Una vez que desarrollé todo y dejé todo listo, armé la estructura y todo, y de hecho, mi primer cliente fue la empresa para la cual estaba trabajando", recuerda Christian.

Así nació Grupo Zmart en 2010, con una inversión de 10,000 pesos que fueron usados para rentar una oficina y los servidores donde se montaría la plataforma. Acompañado de su hermano Francisco y su esposa, Christian logró hacer rentable su empresa desde el inicio. "El primer mes facturamos aproximadamente 100,000 o 200,000 pesos; a los seis meses ya vendíamos cerca de 10 millones de pesos mensuales", narra su fundador. Y es que, a diferencia de otras proveedores de este servicio, la plataforma utilizada por Grupo Zmart es un desarrollo totalmente propio.

¿Cómo logró hacer tanto dinero en tan poco tiempo? Christian responde: "Lo que hice inicialmente fue apoyarme de una pequeña red de vendedores, y era como un esquema multinivel de comercialización, en el que ganaban comisiones por adherir a más puntos de venta y los puntos de venta adherían a más puntos. De esta manera, logramos replicar más rápido el esquema de una manera orgánica sin tener que invertir en publicidad". Actualmente, la plataforma desarrollada por Grupo Zmart tiene más de 29,000 puntos de venta en todo el país.

1,359 MDP FACTURARON DE LAS 30 PROMESAS EN 2014

2,274 MDP FACTURARON LAS 30 PROMESAS EN 2015

De acuerdo con Christian, su objetivo para 2016 es alcanzar una cuota del 15% del mercado nacional y con ello facturar más de 1,700 millones de pesos.

"El siguiente paso es no sólo llegar a los establecimientos, sino también utilizar nuestro mismo sistema como una segunda fuente de ingresos", explica. Dentro de los servicios que planea introducir se encuentra la venta de juegos de lotería, los monederos electrónicos y los catálogos en línea.

Al preguntarle quiénes son los personajes que lo inspiran, Christian da los nombres de Bill Gates y Steve Jobs. De Gates admira su visión de negocios y de Jobs su capacidad de crear productos que la gente necesitaba, pero que no lo sabían. "No veo los negocios simplemente como una generación de recursos y ya,

MARIO HERNÁNDEZ PARA FORBES MÉXICO

sino que me apasiona el hecho de crear algo que mucha gente use". De manera autodidacta, Christian aprendió a programar a los 12 años. Cuando tenía 15 años, logró vender su primer software.

Para Christian, los negocios son sólo una forma de hacer lo que realmente desea: desarrollar tecnología capaz de transformar al mundo. "Lo que estoy creando ahorita es mi plataforma para poder hacer esas cosas que quiero hacer, esas cosas que quiero desarrollar e investigar. Lo que pasa es que para eso se requieren recursos, relaciones y contactos. Realmente yo veo a esta empresa como una plataforma para poder hacer otras cosas más adelante, de más impacto".

Es por lo anterior que Christian rechaza haber alcanzado el éxito: "Yo no considero haber llegado al éxito, ni mucho menos estar cerca. Efectivamente, me siento muy contento con lo que estamos haciendo, pero decir que he llegado al éxito es como ponerme un límite. No me gusta pensar en el éxito como una meta, sino como un camino".

En los próximos años, Christian planea expandir las operaciones de Grupo Zmart a otros países en desarrollo.

"Una vez que ya tengamos un modelo fácil de replicar, pensamos alcanzar algunos países de Sudamérica; inclusive también pensamos en algunos países como la India, que son mercados emergentes que tienen condiciones semejantes a las de México".

El potencial de crecimiento de la compañía es muy grande. El modelo de prepago desarrollado por Telcel en 1992 actualmente registra más de 60 millones de usuarios y ha sido replicado en todo el mundo.

4,481 MDP ES LA FACTURACIÓN ESTIMADA DE LAS 30 PROMESAS PARA 2016

Al respecto del escalamiento de Grupo Zmart, Fernando Lelo de Larrea, fundador y socio director de Venture Institute y Venture Partners, señala: "Escalar un negocio es más fácil para empresas de la industria digital, cuando se distribuyen soluciones de software es mucho más fácil lograr un ritmo de crecimiento acelerado. Independientemente del sector, una empresa que logra facturar tanto en sus primeros años de vida lo hace porque encontró un mercado y demanda creciente para su producto".

Sin embargo, no todo es miel sobre hojuelas, Fernando Lelo apunta que las empresas que crecen muy rápido pueden enfrentar varios riesgos: "Los problemas más frecuentes es que esta falta de control genera cuentas incobrables,

SILVIA Y SERGIO son los fundadores de Sheló Nabel, una empresa que vende productos de belleza por catálogo con una red de más de 200,000 distribuidores en México.

GUILLERMO JAIME CALDERÓN es el fundador y presidente de Grupo MIA, que ha construido 30,000 casas para los más pobres.

MICHELLE BURGOS

problemas de caja, inventarios, fallas en los sistemas contables, pasivos fiscales. Las empresas grandes quiebran fácilmente por problemas de flujo de efectivo, se acaba la liquidez, empiezan a incurrir en sanciones por incumplimiento fiscal, multas por no pagar de seguridad social y falta de pago a proveedores".

CAMPEONES DEL MULTINIVEL

Silvia Cázarez confiesa que proviene de una familia extremadamente pobre. Desde muy joven encontró en la ventas multinivel la oportunidad de hacer frente a su situación económica y construir un patrimonio. Fue en esa lucha donde conoció a Sergio Hernández, con quien contrajo matrimonio. Luego de 20 años viviendo de las ventas multinivel, Sergio y Silvia buscaron hacer realidad su sueño, crear una empresa propia que diera

lateral can't be an IRA or Roth. If it's stocks, the government has cutely arranged to make your interest nondeductible: A securities law forbids using the proceeds to buy more stock, and a tax law forbids the deduction unless that's the purpose of the loan. But interest on a home equity line is deductible on the first $100,000 borrowed, provided you don't pay the alternative minimum tax.

6. DON'T JUMP AT A LUMP SUM. The box below explains why trading in a monthly pension is usually a bad idea.

7. TAKE CAPITAL LOSSES NOW. Got stinkers in your portfolio? Switch into similar stocks or funds for 31 days in order to harvest a tax deduction. There's nothing to be gained by waiting. There is much to be lost. You might really need a loss now or carried forward to some future year when a capital gain is dumped into your lap. Also, unrealized losses evaporate on your death, while the loss carryforward can potentially be used by your widow(er).

8. DON'T TAKE AN IRA DISTRIBUTION YOU DON'T NEED. Let's say you've already taken out the required minimum and you're temporarily in a low tax bracket. You think it would be smart to take out more, to shrink the balance and thus shrink future RMDs. That would be dumb. Instead, convert this supplemental amount into a Roth IRA.

9. MANAGE YOUR BRACKETS. It may make sense to accelerate or defer income in order to keep it from spilling into a higher tax bracket. Find your marginal rate by playing what-if with your tax software. Plug income projections for 2016 into the 2015 program (it's close enough). Now try adding a $10,000 Roth conversion or a $10,000 capital gain. What does that do to the bottom line? How will the picture change in later years?

Surprises lurk in those lines of code. Some retirees are in a 0% capital gain bracket and should take advantage by selling appreciated stock. At higher levels of income the 3.8% ObamaCare tax jumps out of the shadows; an IRA distribution is not supposed to be subject to that tax, yet it can be, indirectly, if the distribution puts dividend income in harm's way by pushing it across a certain income boundary.

Did you know that couples with adjusted gross income between $170,000 and $428,000 are subject to the equivalent of a 3% surtax? It arrives via the additional Medicare premiums charged to higher-income folks *(see chart, p. 72)*.

10. MANAGE YOUR LEGACY. If helping out descendants is part of your plan, consider their tax brackets. Heirs in higher brackets than yours make the case for a Roth conversion a lot stronger.

But also remember that the appreciation on assets you hold until death escapes income tax. This freebie may be more valuable to your family than keeping a tax-favored retirement account going. It could tilt you away from the usual rule that has you burning up taxable accounts before invading IRAs.

11. MANAGE YOUR DONATIONS. Kenigsberg often suggests that a client over 70 send money directly from an IRA to a charity. Up to $100,000 of such donations counts against that year's RMD and also never appears in your adjusted gross income. That spares you from numerous AGI-related gotchas (such as higher Medicare premiums).

But there are times when it pays to play the cards differently. Suppose you want to get rid of a $10,000 block of Amazon stock that you bought for $2,000. And suppose you aren't going to get hit with an AGI surcharge. Then you might be better off donating the stock and simultaneously converting $10,000 of your IRA to a Roth. The charity deduction will be $10,000, with the $8,000 of appreciation never taxed. Your taxable income remains the same. With this finesse you have converted unwanted stock into a tax-exempt account.

LUMP SUM? JUST SAY NO

Psst! If you're thinking of taking an ax to your employees' pension plan, do it now.

That's the advice corporations are getting these days from pension consultants. When an employer terminates a traditional plan (one with a monthly benefit), it can offer to buy out participants with lump sums. Federal rules put a floor on those offers, and the floor will be higher next year if the IRS, as expected, updates its mortality tables.

You don't have to go along. If you get an offer to relinquish your pension after either your company shuts down a plan or you switch jobs, you should probably toss it. It's not just pessimistic death forecasts that depress the valuations of pension benefits. It's the stiff interest rates (5%-plus) used to discount payments arriving years in the future.

Bruce Schobel is an actuary in Sunrise, Fla. who gets called on to evaluate pensions in, for example, divorce cases. He discounts benefits using the low rates on riskless Treasury bonds. That's because most benefits are backstopped three ways: by the employer's assets, the pension plan's assets and a federal guarantee agency.

For a midcareer employee the IRS-approved valuation can be miles away from fair value. A healthy 45-year-old female who has earned a $2,000 monthly benefit to start at age 65 is sitting on an asset worth $216,000. Her buyout offer is likely to come in not far from $103,000. —*W.B.*

Richie Rich Roths

Too wealthy to contribute directly to a Roth IRA? Here are six other ways to build a tax-free kitty.

BY ASHLEA EBELING

Gintar Repecka has spent his working life as a pyrotechnician and special-effects coordinator for movies like *Iron Man* and *Armageddon*. Now the 61-year-old is making magic with his retirement savings—by making future tax liabilities disappear.

In October he withdrew $250,000 from a pretax traditional IRA and converted it into a Roth IRA, where all future growth and withdrawals are tax-free. The conversion is costing Repecka and his wife just $14,000 in 2015 federal and state income taxes—maybe a tenth of what the Granada Hills, Calif. couple would pay if they drew down that pretax IRA throughout their retirement years. "The beauty is that whatever I siphon off of the Roth won't get added to my taxable income," Repecka says. *(For more on managing your taxes in retirement, see page 70.)*

In a basic Roth conversion you declare the money in a traditional IRA immediately taxable, pay what's due on it (preferably from nonretirement accounts) and then move it into a Roth. The drawback to a conversion is a potentially whopping current tax bill.

But with the help of his Granada Hills tax guru, Doug Thorburn, Repecka executed an "opportunistic" Roth conversion. It worked like this: When he retired last spring, Repecka took both a regular pension from the Motion Picture Industry Pension Plan and a lump sum payout, which he rolled into his pretax IRA. Then the couple sold a ski condo they'd owned and rented out for 12 years, incurring a small loss. More significantly, the sale allowed them to claim 12 years of passive activity losses, which tax rules wouldn't let them claim against ordinary income until they sold. The condo losses soaked up most of the income from converting $250,000 of Repecka's IRA to a Roth.

Complicated? Yep. The simplest way to build a Roth nest egg is to make annual aftertax contributions to a Roth IRA—up to $5,500 per person, or $6,500 for those 50 and older. But for 2016 the amount you can contribute is reduced once your modified adjusted gross income reaches $117,000 for an individual or $184,000 for a couple. At $132,000 for an individual or $194,000 for a couple, you can't contribute at all.

When Roths were created in 1998 there was an income limit on Roth conversions, too, but that came off in 2010. Since then clever tax pros have developed various methods for well-off folks to build up Roth kitties—without a big conversion-tax hit. Repecka's opportunistic conversion, timed to take advantage of a big tax loss, is just one of them. Here are five more.

THE BACKDOOR ROTH IRA

There are no income limits on making annual nondeductible contributions to a traditional IRA. Turns out you can legally make a $5,500 or $6,500 nondeductible contribution to a traditional IRA and then immediately convert the sum to a Roth. (More conservative tax advisors suggest waiting until you get your first statement showing the money was, however briefly, really in the traditional IRA.) Since the contribution was made aftertax, there's no previously untaxed income (or at most a few weeks of earnings) for the IRS to tax. You can make nondeductible IRA contributions for 2015 until Apr. 18. (Be sure to file and retain Form 8606—it establishes your aftertax basis in the IRA.)

One trap to watch out for: Roth IRA conversions are taxed on a pro rata basis. If you have $95,000 of pretax money in a traditional IRA and make a $5,000 aftertax contribution, 95% of whatever you convert to a Roth will be taxable.

Possible way around this trap: If your 401(k) plan allows it, roll your traditional pretax IRA money into your 401(k) before doing a backdoor Roth IRA.

THE FRONT-DOOR ROTH 401(K)

Since 2006, 401(k)s have been allowed to offer a Roth option, and a majority of larger plans now do. For 2016 you can make $18,000 of employee contributions to pretax and Roth 401(k) accounts combined, plus another $6,000 in "catch-up" contributions if you'll be 50 or older by the end of this year.

Fortunately, there are no income limits on who can contribute to a Roth 401(k). Unfortunately, every dollar you use to fund a Roth 401(k) is a dollar less of pretax 401(k) contributions you can make to cut your 2016 income tax bill.

THE BACKDOOR ROTH 401(K)

A better approach for high earners is to make additional aftertax contributions to your 401(k), if you can. For 2016 the maximum that can be put in a 401(k) for any employee is $53,000 ($59,000 if the worker is 50 or older). That total includes basic salary deferral (made in pretax or Roth contributions), the employer match and aftertax contributions that don't go directly into a Roth account. Say you are 55 and socking away the full $24,000 pretax, while your employer kicks in a $6,000 match. Legally you could still contribute another $29,000 aftertax—if your employer permits it.

Here's the back-door move, which again works only if your workplace plan allows it: You can roll your aftertax 401(k) contributions directly into a Roth IRA. Even better, IRS rules allow you to separately roll any earnings on your aftertax money into a traditional IRA, which eliminates any immediate taxes on your rollover. This usually works until you reach age 59½—or the age when your plan allows you access to all of your 401(k) dollars. After that you may have to roll all of your now accessible pretax and aftertax money out of your 401(k) and into separate IRAs to get those aftertax contribution dollars into a Roth IRA tax-free, says Ed Slott, an IRA expert in Rockville Centre, N.Y.

THE MARKET-VOLATILITY PLAY

With the stock market down 11% from its 2015 highs, this one is worth considering. Say you've got $1 million in a traditional IRA and would like to convert at least some of it.

You convert it now into ten separate Roth IRAs, one holding just your Apple stock, one holding your energy stocks, one holding a large-cap mutual fund and so on. Incredibly, you have until Oct. 15 of the following year to undo, or "recharacterize," any Roth IRA conversion. So before October 2017 you look at the market and undo conversions of stocks that have fallen, while keeping conversions of sectors that have rebounded.

"There's no downside. With this crazy market, why not? What do you have to lose?" asks Robert Keebler, a CPA in Green Bay, Wis. whose firm has helped hundreds of clients use this technique.

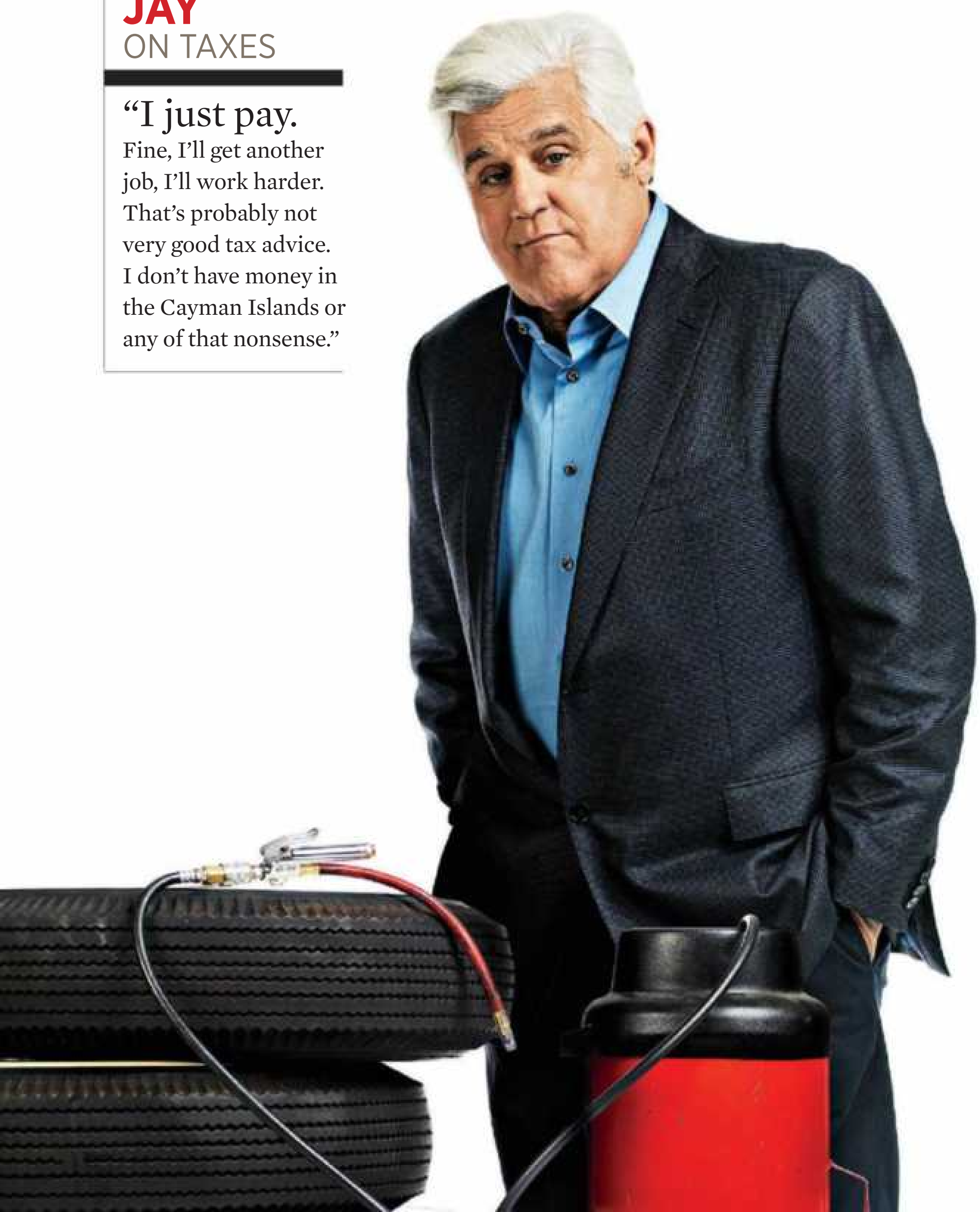
THE BRACKET FILL

This is a slow and steady technique, often best executed after you've stopped working full-time but before you reach 70, particularly if you're delaying claiming Social Security until 70 to get a bigger benefit.

Say you're in a 15% tax bracket now but expect to be in the 25% tax bracket once your Social Security starts and you must also begin taking taxable required minimum distributions from your traditional IRAs. Convert just enough of your IRA each year to fill up the 15% bracket. For 2016 a couple can have up to $75,300 in taxable income (that's after all deductions and exemptions) before hitting the 25% bracket. F

JAY
ON TAXES

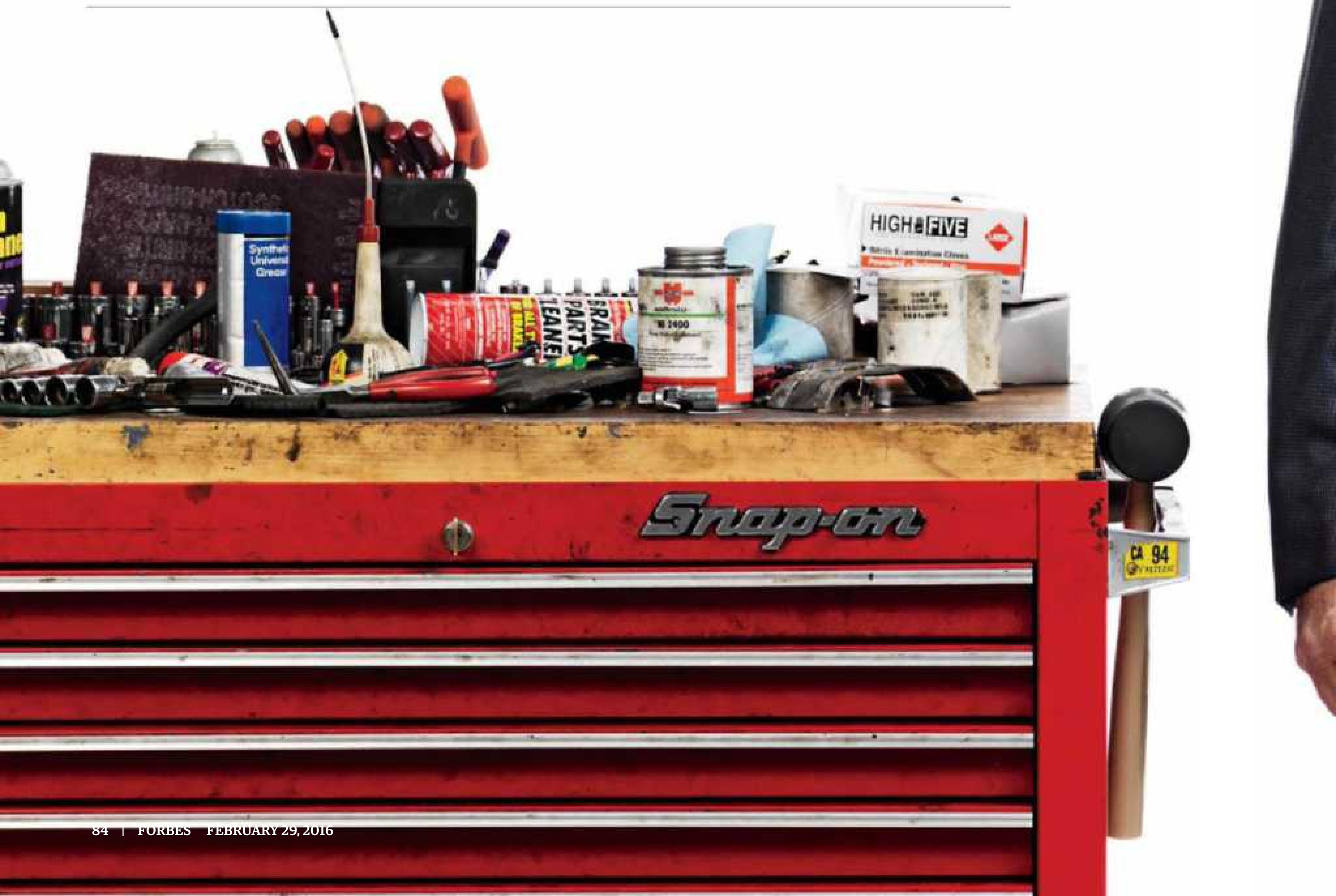
"I just pay. Fine, I'll get another job, I'll work harder. That's probably not very good tax advice. I don't have money in the Cayman Islands or any of that nonsense."



Gap Year For Boomers

Harvard and Stanford are helping high-powered retirees find themselves—in new social impact careers.

BY KERRY HANNON



JAY
ON RETOOLING YOUR LIFE

"Since high school, I've always had two jobs. I worked at a McDonald's and I worked at a car dealership. ... When I was doing the *Tonight Show*, I'd be on the road at least two to three days a week because I thought, 'We'll see how long this lasts.' "

By 2008 Doug Rauch, president of Trader Joe's, was burned out. He had spent the last 31 years—virtually his entire career—overseeing the quirky California retailer's rapid expansion to the East Coast, developing its buying philosophy as well as its private-label food program and traveling "ceaselessly." He was just 56, he didn't need to make any more money, but he wanted to slow down and "get off the wheel," as he now puts it. So Rauch "retired" with a plan to keep busy serving on corporate and not-for-profit boards from his base in Newton, Mass. Within a year, he says, he realized that he had "too much operational stuff in my blood" to be satisfied with that.

Rauch had heard about a newly launched program at Harvard University called the Advanced Leader-

ship Initiative, a yearlong program for executives and other successful professionals, mostly in their 50s and 60s, looking to move into the not-for-profit world. For a fee of $55,000, the handpicked fellows (48 made the cut for 2016) spend a calendar year auditing classes across the entire university, brainstorming with professors and other students, making contacts and developing their own independent projects.

In 2009 Rauch applied to the program, knowing he wanted something hands-on and with social impact. He also figured that he had the best shot at making a difference if he stuck to what he knew. "I really do know the food system, and I know retail," he says. Plus, he'd long been disturbed by both food waste and the problems poor people have affording healthy food.

Rauch, who earned his undergraduate degree in 1972 at commuter college Cal State Los Angeles, entered Harvard in January 2010 and spent the next year learning about everything from dark matter (in his astronomy class) to agribusiness and social entrepreneurship. About once per week he attended three-hour discussion seminars or dinners focused on change leadership with other institute fellows.

"Going back to college was a blast," says Rauch, 64, mentioning that he felt the need to overhaul his wardrobe with a black Patagonia jacket, backpack and blue jeans. "I soaked up the pure joy of learning and the energy of young people. I began to look at the world with fresh eyes. I woke up again." His awakening also forced him to rethink his food-market concept numerous times as he "bounced ideas off of and crowdsourced with really smart people."

The result was Daily Table, a 3,500-square-foot not-for-profit market in the lower-income Dorchester neighborhood of Boston. Today it sells groceries and produce at rock-bottom prices and healthy prepared and ready-to-cook meals at prices designed to compete with the cheapest fast-food joints. (Prepared dinners like rotisserie chicken and fresh fish start at $1.99.)

Daily Table keeps prices low, in large part, by accepting tax-deductible donations of perishable food near its expiration date or close to being too ripe. Donors include local growers, wholesalers and manufacturers like Boston Organics, Newman's Own and organic-yogurt maker Stonyfield Farm. Slightly brown bananas go for 29 cents a pound and eggs $1.49 a dozen—about half what they cost elsewhere.

"GOLF AND MAH-JONGG WILL NOT LEAVE MOST PEOPLE WITH A DEEP SENSE OF SATISFACTION."

It's a clever idea—selling food that might otherwise end up in Dumpsters. Confusion over "sell by," "use by" and "best before" dates accounts for a big chunk of the $165 billion of food wasted in the U.S. each year, according to a study by researchers from Harvard Law School and the Natural Resources Defense Council. And Rauch certainly has collected a blue-chip list of backers. The Dorchester store was opened last June with funding from the Robert Wood Johnson Foundation, Blue Cross Blue Shield of Massachusetts and the PepsiCo Foundation, among others.

He's also opening a teaching kitchen at the Dorchester site that will be used for free nutrition and culinary education. The whole Daily Table operation, he explains, "is really a health care initiative masquerading as a healthy food store." Once that concept is proved in Boston, where he is planning to open a second store later this year, he's looking to spread it to other cities where he sees a need, including Detroit, Baton Rouge and Los Angeles.

Call it the new retirement fantasy. Instead of exotic beaches, successful folks of a certain age dream of going back to school and then continuing to work—but at something with social impact. "I believe in my heart that most of us find real satisfaction in our lives when we are doing something meaningful," says Rauch. "Golf and mah-jongg will not leave people with a deep sense of satisfaction."

Ann MacDougall, 62, was chief operating officer of Acumen Fund (a not-for-profit that makes impact investments) and prior to that global deputy general counsel at PricewaterhouseCoopers before she entered the Harvard fellowship in 2013. She had the idea of reinventing herself as an intermediary focused on helping other successful boomers looking to transition to nonprofits. During her year at Harvard she decided to apply for the position of president at Encore.org, a 19-year-old organization that has been in the vanguard of promoting social impact work for those in midlife and beyond. MacDougall landed the Encore job.

Paul Irving, 63, was CEO of Manatt, Phelps & Phillips, the big Los Angeles law and consulting firm, where he'd spent 26 years before he left the firm to join the 2010 class of Harvard fellows. He's now chairman of the Milken Institute Center for the Future of Aging and credits his year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in Cambridge with helping him make that successful transition. "I couldn't say the specific education was critical," he says, "but it did get people thinking about me in a different way and me thinking about myself in a different way—instead of just being a lawyer."

In many ways Harvard's program functions much like a gap year—that year before college or grad school that some students take off to figure out what they want to do or who they are or simply to get a break from the grind. Rosabeth Moss Kanter, the 72-year-old Harvard Business School professor who conceived and directs the institute, stresses that her program "is not a year off." The goal of the fellowship, she says, is to "deploy a pool of highly experienced, accomplished people with many productive years ahead, beyond their primary income-earning careers, who are motivated to apply their skills to tackling big, complex, messy problems."

Given the economics of Moss Kanter's "back-to-school" brainchild at Harvard, which now receives about 500 applications per year, plus the potential demand for such programs, you can expect more "elder gap year" programs at other prestigious colleges. Last March, for example, officials from 21 schools, including Columbia, Cornell, Tulane, UCLA and the University of Washington, attended a summit at New York University to confer on policies and practices. (The meeting was organized by Encore.org.)

Stanford University has already started its own yearlong program. The Stanford Distinguished Careers Institute, now in its second year, with 25 students paying $62,000 each, is run from Stanford's Center on Longevity, not its business school, and doesn't push c-suite retirees to develop a specific social action project the way Harvard does. Instead, in a more laid-back California fashion Stanford focuses on the fellows' personal transition from high-powered career to a meaningful second act. It even invites their "life partners" to participate for an extra $28,000.

Dr. Philip A. Pizzo, the 71-year-old pediatric oncologist and former Stanford School of Medicine dean who founded the institute, embraces the gap year label. When high-powered types leave their primary jobs, he observes, "they begin taking on tasks just to keep busy. Becoming busy is easy, but being happy about a renewed purpose takes time and reflection." The Stanford year, he adds, permits them to take stock and think about what they really want to do.

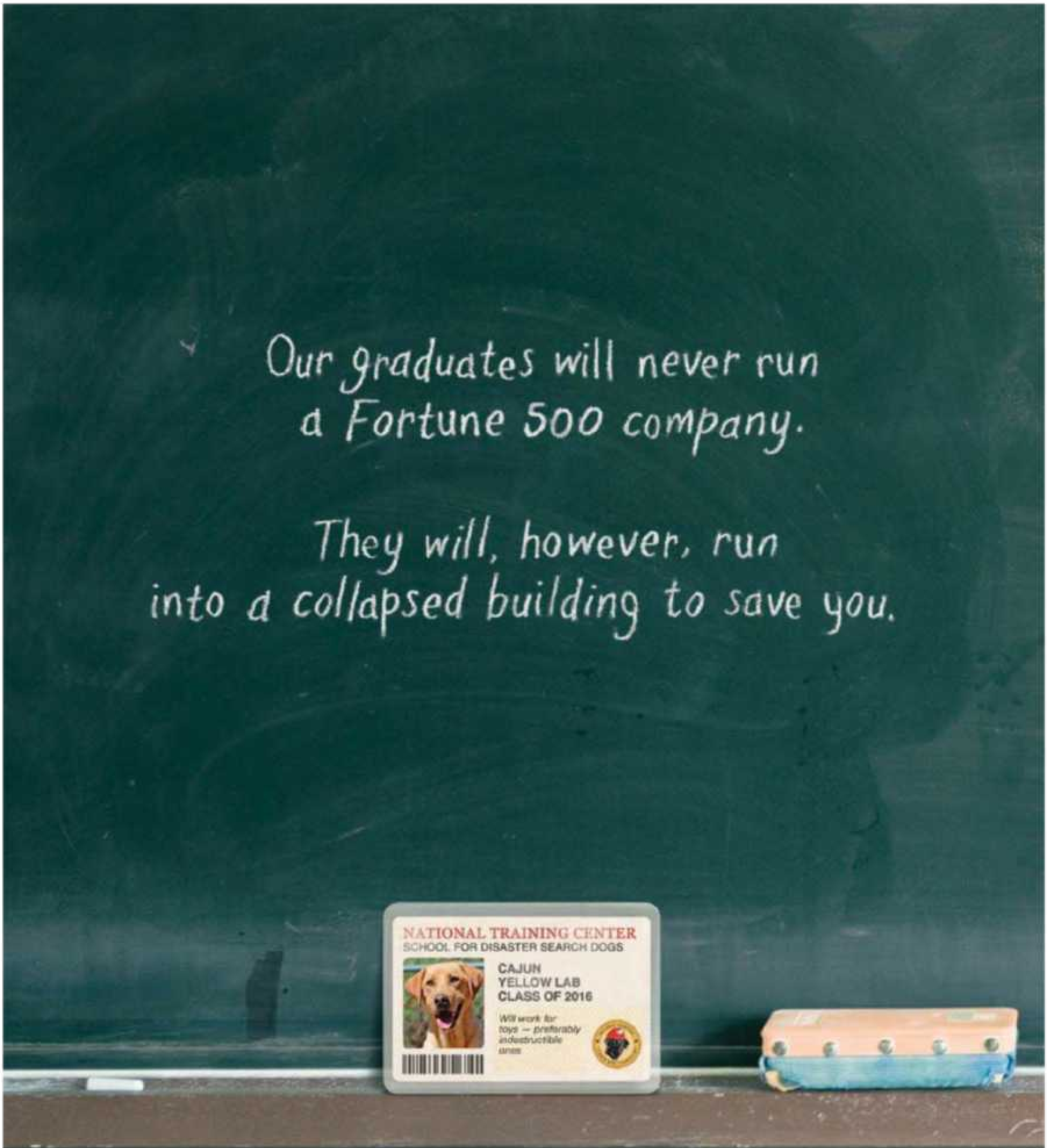
That approach suited Susan Carter, 59, who entered Stanford's first class last year after 17 years as CEO of Wilton, Conn.'s Commonfund Capital, which manages $14 billion, mostly for nonprofits. "I have always had goals—goals for the company, annual goals, goals for the team. I actually like the idea that I'm going to take it one day at a time," says Carter, also a veteran of GE and Morgan Stanley, who now sits on the advisory board of the startup Girls Who Invest.

At Stanford Carter took a class on memoir writing that helped her to "think hard about what I want out of my next chapter," as well as courses on personal wellness, the mind/body connection, nutrition, art history and one dubbed "Rethinking the Ballerina." "I was so absorbed in the campus scene that I thought I was 20 again," she laughs. "The most challenging thing was deciding what not to do on campus."

DIY SECOND-ACT PLANNING

You don't have to spend $60,000 and a year at Harvard or Stanford to find a new vocation with meaning. Here are some steps to take—preferably before you retire from your old job.

- **RUN THE NUMBERS.** Can you afford to move to a lower-paying sector and perhaps to a less senior job in it? Will it require lifestyle changes?
- **PLAN AHEAD.** If you want a new career at 60, start working on it at 55.
- **FOCUS ON THE SKILLS YOU HAVE—BE IT IN FINANCE, IT OR SALES.** Odds are they can be used by not-for-profits, too. You might be able to hone them for the nonprofit sector with just a course or two, e.g., accounting for not-for-profits. (Seton Hall University maintains a searchable list of nonprofit management courses across the country.)
- **VOLUNTEER.** Find an organization or two whose mission appeals to you and raise your hand. Offer to manage a project. Do pro bono consulting. Serve on a not-for-profit board or boards. Participate in charity auctions and 10k races—you're networking while doing good.
- **CREATE A NONPROFIT-ORIENTED RESUME.** Consider hiring a career coach to help you think through your next steps and to fashion a résumé and cover letter that highlight how your experiences directly apply to the organizations you're interviewing with.
- **CHECK OUT SPECIALTY WEBSITES.** Commongood Careers and the Bridgespan Group feature jobs and tips to help people with in-demand skills shift into the nonprofit world.
- **HONE YOUR ELEVATOR PITCH.** Nonprofits want to hear a convincing story about your passion and commitment to their cause. It's okay to wear your heart on your sleeve if you're sincere and succinct. *—K.H.*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Will work for toys — preferably indestructible ones

Take the Wheel Of Your Self-Driving 401(k)

Do you know what your target date fund owns and what it's charging you?

BY MAGGIE MCGRATH AND JANET NOVACK

Some day you may buy an autonomous vehicle. But first you're likely to spend a good bit of time considering its cost, its safety and whether it fits your lifestyle and even the way you like to drive. Maybe you tend to speed, but the car is programmed to obey the law.

Target date funds are the self-driving cars of the retirement industry. If you've got one in your 401(k), do you know how much it's costing you? How much risk it takes? How it synchs with your own investing preferences and life plans? If you can't answer (or haven't asked) those questions, you've got lots of company.

Targets hold a mix of stocks, bonds and sometimes other assets, too, that is set and reset based on the years until your expected—i.e., target—retirement date. They start out with a very high stock allocation for Millennial investors on the theory that stocks, while more volatile than bonds, offer a better long-term return and young investors have decades to recoup any losses. That high-equity allocation is reduced over time, along what's known as a "glide path."

In theory a retirement saver has to make only one decision: to buy the fund. In practice many target date owners haven't made any decision at all.

That's because in 2006 Congress made targets a "default" option for workplace retirement savings plans. A majority of employers surveyed by benefits consultant Aon Hewitt now automatically enroll new hires in 401(k)s, and 81% of those companies steer their new workers' retirement savings into target dates—unless they proactively choose different investments. At the end of 2014 target dates held $937 billion, or 20.8% of all 401(k) money, according to research firm Cerulli Associates.

Young workers, who have come into the workforce during this auto-enrollment age, are by far the most heavily dependent on target date funds. Meghan Murphy, director of Fidelity Investment's Thought Leadership group, reports that 63% of the Millennial-age workers with 401(k)s at the firm have 100% of their money in a target date fund. "They are more of what we would call a 'do it for me' generation," she says. "Their employers have designed their retirement benefit so they enroll them in the plan, give them an investment allocation—and the vast majority of Millennials are okay with that right now."

As investment pros see it, the target date revolution has improved the overall allocation of workers' money and hence their retirement prospects. A decade ago, points out Jean Young, a senior research analyst with Vanguard's Center for Retirement Research, young investors actually held a smaller share of their savings in stocks than older workers did. With target date funds that has flipped.

What's surprising, however, is that not all target date investors even realize that they're taking on stock market risk. Get this: In a survey done by Alliance-Bernstein last year, 36% of target date owners said their funds were insured by the FDIC, which, of course, guarantees consumers' bank deposits and has nothing to do with mutual funds. Almost as many thought they were guaranteed adequate retirement income as of that magical target date.

Sure, a lot of Americans are financially illiterate. But even more sophisticated folks are often oblivious to the widely varying costs and asset allocations of target date funds.

Dhru Purohit, a 33-year-old entrepreneur in Santa Monica, Calif., admits that it wasn't until he consulted a local financial planner that he realized the 401(k) he had set up at the last company he cofounded had target date funds costing more than 1% of assets a year.

"I'm not against target date funds," says Purohit, now the CEO of Hyman Enterprises, a business venture involving the celebrity physician (Dr. Mark Hyman) who runs the Cleveland Clinic's alternative "functional medicine" program. Workers don't need to manage their own portfolios, he reasons, but "you have to know what questions to ask. And part of that includes what are the fees and does the person that's recommending you a product get a commission based on what they steer you towards."

At his new company, with the help of planner Christopher Girbes-Pierce, Purohit is looking for target dates charging less than 0.30% to offer in the 401(k).

Truth is, cost is the easiest feature to pin down and compare when it comes to target dates—certainly easier than, say, risk-based performance or glide path. Since a target date fund is really a "fund of funds," its fee covers both underlying fund costs and (usually) an extra charge for its services selecting and rebalancing the funds as you move along the glide path. (We say usually because 30% of target date families make so much money off the underlying mutual funds that they charge nothing for the target date wrapper or even give a small discount to target date buyers.)

The lowest fees are charged by target date families that use only passively managed funds designed to track a stock or bond index, rather than actively managed stock-picking funds. The Vanguard Group, which now manages the most target date dollars ($358 billion as of the end of 2015), charges 0.14% to 0.16% of assets a year for its 12 publicly available, all-index target date funds.

Similarly, number two Fidelity offers index-fund-only target dates costing 0.14% annually. That compares with 0.68% for its Fidelity Freedom target family, which uses actively managed funds, and 0.95% for its actively managed target funds sold by advisors, according to Morningstar.

Overall, average annual target date costs have been falling—from 1.04% of assets in 2008 to 0.78% in 2014 and just 0.58% when weighted by market share, which has been shifting toward the cheaper offerings, according to Morningstar's 2015 Target-Date Fund Landscape report. But don't assume you're safe: Fourteen of the 57 target date families covered by that report still nicked investors for 1% or more of assets a year. Those extra costs might not sound like much, but they compound. Example: Pay an extra 0.70% in annual expenses over a 40-year career and you'll end up with about 15% less for retirement, calculates the Center for Retirement Research at Boston College.

Asset allocation differences can be just as dramatic as cost spreads. Target date funds designed for those retiring in 2055—meaning today's twentysomethings—put anywhere from 72% to 99% of their funds into stocks, according to Morningstar's 2015 report. The 2020 funds designed for today's 60-year-olds varied even more, with stock allocations ranging from 27% to 64%.

The whole selling point of target date funds is that they're supposed to be "set-it-and-forget-it" simple. But such different glide paths introduce a whole other level of complexity when it comes to comparing the performance of target date funds meant for folks of the same age. You know the cliché about not using past performance to pick funds? That's particularly appli-

JAY ON BUY AND HOLD

"The McLaren F1, I paid $800,000 for it in 1998. The last offer I got was $12 million. ... The nice thing is, if you buy what you like, and it doesn't go up in value, you still like it."

cable to target dates. The high-equity funds that looked like winners in, say, 2013 may not look so shiny now. Some managers attempt to reduce risk by diversifying beyond stocks and bonds, with real estate and commodities, for example. That might be prudent, but it makes it even more difficult for an ordinary investor to gauge a fund's performance relative to its risk.

Note that equity allocation differences widen as workers age. That's in part because the industry is split over whether glide paths should be designed to last "to" retirement or "through" retirement. It's useful to know which side of this debate your fund is on: According to TIAA-CREF, "to" funds hold an average of 31% in equities when you hit 65, whereas "through" funds average 49%. Vanguard, which favors the "through" model, doesn't reach its lowest equity allocation of 30% until seven years after a worker's target retirement date.

So look at the glide path, for sure. But be aware that there's no guarantee your manager won't change it. In 2013 Fidelity announced a major revamp of its glide path that raised its equity allocations markedly, particularly for middle-aged workers.

Given all that, the most relevant question may be whether your fund's asset allocation is right for where you are now and for your personal risk tolerance. Indeed, there's evidence that when investors take the time to examine what's in their target dates, they're not always satisfied.

Aon Hewitt tracks the movement of 401(k) money belonging to millions of participants. In November, the most recent month available, 41% of all new dollars contributed to 401(k)s went into target date funds. In the same month 59% of the dollars switching from one asset class to another moved out of target dates.

"I can't think of a time that anyone has ever looked at a target date fund they automatically invested in and said, 'Oh, perfect.' That never happens," says Austin financial planner Philip Olson. Older investors "are usually shocked at how much they've got in bonds [in the target date]," he adds.

One prominent target date skeptic is Michael Kitces, director of planning research at the Pinnacle Advisory Group in Maryland and a cofounder of the XY Planning Network, a group of fee-only planners for young investors. He points out that high stock allocations for Millennials are predicated entirely on their theoretical capacity to take risk over 30 to 40 years, and ignore whether they really have the stomach for it.

> HOW MUCH OF YOUR 401(K) SHOULD BE IN STOCKS AT AGE 60? TARGET DATE ANSWER: FROM 27% TO 64%.

"It may be true that they have a sufficient time horizon, but that doesn't mean they want to get on that roller coaster," he says. "I worry a lot that when we go through the next bear market, they'll panic and make the bad investment decisions that almost any person will make when they take more risk than they can tolerate."

It's worth thinking about. During 2008 some target dates lost 40% of their value, a Morningstar report shows. If the market crashes again, would you panic and sell? That's just the sort of mistake target dates are supposed to prevent.

Beyond risk tolerance, there's the issue of when you might really need to tap into your 401(k) money. Employers and target date designers assume that what a twentysomething puts into his 401(k) is going to be saved for retirement in 40 years. "If that's not the individual's objective, if you're thinking of [using the money for] grad school, you're thinking five years down the road," says Rob Austin, director of retirement research at Aon Hewitt. "You probably want to pick something more conservative."

So what should you do if you're invested now—through choice or default—in a target date fund? Look at both fees and current asset allocation. Most 401(k)s offer only one family of target date funds. If costs in that family are reasonable and you like the idea of a one-stop target fund but you're not comfortable with the allocation, then "game the system a little," suggests Kitces. There's nothing requiring you to pick a fund that coincides with your age. For a lower stock allocation, pretend you're older. For a higher stock allocation, shave some years off your birth date.

If price is the big sticking point, what can you do beyond complaining to your benefits department? One option is to look for cheaper alternatives within your own plan. For example, an old-fashioned "balanced" fund with low fees might do just as well. Research by Rob Arnott, founder and CEO of Research Affiliates, shows that, historically, holding a balanced fund that is 50% stocks and 50% bonds for your entire career has produced better results than a typical glide path.

Another alternative, assuming you have access to cheap index funds in the 401(k), is to buy them directly, replicating the asset allocation for your target year. To produce your own glide path, direct a slightly smaller share of new contributions into equities.

If those options don't work, ask about a "brokerage window"—40% of plans offer them, according to Aon Hewitt. For a fee of $100 or so a year, you can invest your 401(k) in funds, and usually ETFs and stocks, too, outside those offered by your plan. Of course by that point you're back to the good old days of driving your own car. F

THE ROBOT-POWERED INTERNET

MICHELLE GIBSON FOR FORBES

Kik Messenger is a huge hit with teens—and a sudden threat to Facebook in the race to create the world's mobile operating system. The company's 28-year-old founder thinks his bots give him the edge.

BY **PARMY OLSON**

In one of the classier restaurants of Waterloo, Ontario, a university town covered in piles of snow one January afternoon, I open Kik Messenger, one of the most popular chat apps in North America among teenagers, and scan a code on the wall. A new conversation pops up in the app. "Welcome to the Bauer Kitchen! What can I get you?" Suggested answers hover over my keyboard, and I tap "Order drinks." It writes back: "Please type your drink order below." "Diet coke," I type, dropping the pleasantries I'd normally use with a human server. Minutes later a waitress comes by, and instead of asking what I want,

It's easy to dismiss Ted Livingston and his Kik messaging app, a fraction of the size of Facebook Messenger, but he's been out front on all the big ideas in the chat wars.

puts down a tall, dark glass of fizz and ice.

It felt a bit like the first time I tapped a button and an Uber car appeared three minutes later—the magic of what many in the tech industry call online-to-offline, the ability to order physical products or services from an app. Except now you don't even need a new app—you can just chat your way to a richer life.

The golden era of mobile apps is already over. Americans have been downloading zero of them per month on average. Most of us have all the apps we need and have narrowed our use down to a few messaging and social networking services. So, instead of wasting thousands of dollars pushing an app on an unwilling public, businesses like Bauer Kitchen are taking their business to services such as Kik, Facebook Messenger and WhatsApp that their customers are already using to text.

In China millions of businesses already take payments and advertise through so-called official accounts on WeChat, or Weixin in Mandarin, the country's biggest messaging app, with 650 million active monthly users. WeChat may have grossed as much as $3.8 billion last year, most of it from selling games and video ads on official accounts, but transaction fees will likely take up a bigger portion as more businesses sell goods and services through the app. More official accounts are reportedly set up on WeChat each day than on traditional sites on the Web, a testament to China's leap toward a mobile-first or, more precisely, a messenger-first Internet.

The big question for businesses: Who on their end is going to handle all this chatting? They can hire humans or train their existing customer service people to do it, but a new option is emerging: Go with robots. Many of WeChat's 10 million official accounts have a mixture of humans and bots. Go to the account for Beijing's Dian DouDe restaurant and you'll see a colorful Web page with prices and photos of steamed dumplings you can order from your table via the app. Want to order a flight from one Chinese city to another? Text "Jan. 22, 2016, Guangzhou, Beijing" on the China Southern Airlines WeChat account and you'll get a list of options you can tap and pay for. At a vending machine in Beijing you can scan a QR code with WeChat and pay for a milky Vitasoy drink with Weixin Pay.

Facebook Messenger is also going down the humans-and-bots path. More than two dozen companies have begun using Facebook's Business on Messenger since it launched in March 2015, according to Frerk-Malte Feller, who runs the program for Facebook. Clothing retailer Everlane has a couple of customer service agents chatting with as many as 200 customers each day about their shipments, using software from Zendesk. You can order an Uber on Messenger by tapping an address and requesting a ride, before a bot texts your driver's ETA. As these businesses add customers beyond what humans can handle, "bots will play an important role," says Feller.

Bots are a fancy way to describe automated messages. They're a cheap alternative to customer service agents and descend from artificial intelligence research going back to Joseph Weizenbaum, the MIT professor who built a computer program in 1964 called ELIZA that could uncannily play the part of a psychotherapist by asking people open-ended questions and responding with things like "Does that question interest you?" Chat bots have come far since then. Tel Aviv startup Imperson has built a Miss Piggy bot that chats with people on Facebook Messenger on behalf of Disney, promoting *The Muppets* TV show in ersatz French while asking for online dating advice.

"Thirty years ago if you liked someone, you hung the poster from the magazine on your bedroom wall," says Imperson's cofounder Eyal Pfeifel. "Today fans expect a more direct interaction with their idols." Bots will eventually go beyond fictional characters to real-life celebrities, whose perfectly coiffed digital identities are already outsourced to teams of social media experts. Pfeifel recently experimented with bots masquerading online as famous actors and says people who chatted with them "had great conversations" and were happiest, weirdly enough, when the celeb-bot admitted that it was a bot. Says Pfeifel: "The most common response after that is 'I love you.' "

Chat bots have already been popping up everywhere, from Apple's Siri to Microsoft's Cortana to digital assistant startups like Magic, X.ai, Digital Genius and Operator. Facebook launched a digital assistant called M in August 2015, using a secret combination of human agents and bot software that learned from the human responses, and may act as a showcase for what businesses could do on Messenger. The restaurant recommendation app Luka is fully automated, and its Russian cofounder, Eugenia Kuyda, says giving the bot personality is paramount to making it suc-

"You don't have to pass a Turing test to create a meaningful connection with people."

The Biggest Players In Chat

	Kik Messenger	Messenger	WeChat/Weixin	LINE	WhatsApp
OWNER:	Ted Livingston, Union Square Ventures, RRE, Spark Capital, Tencent	Facebook	Tencent	Naver Corp.	Facebook
ACTIVE USERS:	80 million	800 million	650 million	215 million	1 billion
USE OF BOTS AND AI:	80 promoted chat bots	Testing M, an assistant that carries out tasks	Huge list of retail partners	Reportedly working on a digital butler	None
CAN YOU HAIL A CAB?	No	Yes	Yes	Yes	No
DEMOGRAPHIC:	North American teens	Americas-heavy, 16-24 years old	Asian, mostly Chinese, 25-34 years old	Asia-Pacific and Middle East, 16-44 years old	Latin America, Middle East, Asia, 16-54 years old

cessful. “You don’t have to pass a Turing test to create a meaningful connection with people,” she says, referring to the threshold beyond which people cannot distinguish between machine and human. Kuyda is testing bots that hold emotional conversations on the chat app Telegram, which is teeming with tens of thousands of chat bots that can tell you the weather, play a poker game or help you choose a gift on Chinese e-commerce site AliExpress, a division of Alibaba Group. Telegram founder Pavel Durov says he’ll finally make it possible for these bots to process payments this year, which developers say will open the floodgates to the kind of money they used to be able to make from apps.

Kik, sequestered in remote Waterloo, is taking a unique and maybe prescient approach to bots. Unlike Telegram, it is working with more than a dozen businesses and developers to build bots. Unlike with Facebook, businesses on Kik’s platform will use only fully automated functional bots, and not very smart ones at that. “On the spectrum of all-knowing to superdumb, we’re very much at the end of superdumb,” says Kik’s founder, Ted Livingston, in a voice that often sounds like a surfer-dude drawl. It’s easy to dismiss Kik, with an estimated 8 million active users in the U.S. (a number he claims is “wildly” low) versus Facebook Messenger’s 60 million, WhatsApp’s 12 million and Snapchat’s 20 million. But Livingston’s earlier bets turned out to be spot-on with trends that were picked up by his competitors. In 2011 he was the first to turn his chat app into a platform for other services like games and browsing, preceding WeChat and Facebook Messenger by years. In July 2014 he was the first in the West to launch chat bots for advertisers. Today around 80 big brands, such as MTV, SkullCandy and the *Washington Post,* hold stilted conversations through bots on Kik. This year it’s testing chat bots you can activate in fast-food joints by scanning a code to order a meal—a cheaper alternative to the large, digital kiosks installed in some outlets that cost around $150,000 each.

Kik isn’t profitable, and research firm Privco estimates it brought in sales of about $30 million in 2015 (Privco estimates $52 million for Snapchat). Livingston won’t comment on revenue. He makes some money from selling games and stickers, but the lion’s share comes from ads. The 80 companies that have set up chat bots on Kik bid on how many people, ages and genders they want to target, paying, say, 15 cents a user, similar to the way advertising works on Twitter. Though Kik doesn’t have the scale of Facebook it’s well ahead in selling bots as a marketing service. That’s an advantage at a time when chat apps are growing in users and engagement time while searches on Google have been steadily declining since early 2013 and the growth of Facebook’s core users has plateaued. More than 2.1 billion people in the world now regularly use a messaging app, according to Portio Research.

“Some people refer to messaging as the future of the Web,” says Eric Setton, CEO of the messaging app Tango, which has 350 million registered users. In February he spun out Tango’s games and chat rooms to focus solely on developing his original messaging service. “It’s a universal interface. It can replace anything you do connected to the Internet. We never would have predicted that something like that was even possible.”

Kik's big advantage is the demographics of its user base: 50% are teens, representing four out of ten teenagers in the U.S., many of whom think Facebook is uncool. Livingston's "trust and safety" team has to keep a lid on the high levels of porn, bullying and underage hookups that occur on the app, he says, adding that Snapchat is "way worse." Teens are the most hotly desired demographic on mobile and act the most like the cutting-edge Chinese. They've never experienced buying on a desktop website. They first browsed the Web on a smartphone. And they'll be the first to use bots to power the world around them, says Livingston. "In China bots power their society," he says. "We're trying to build the operating system for society." His other big advantage is a partner in China: In August WeChat's parent, Tencent, bought 5% of Kik for $50 million, valuing the startup at $1 billion and starting the tall, chuckling Livingston on what he calls a journey to becoming the WeChat of the West.

To build the technology that could run the new mobile society, Livingston, 28 and an alum of the Forbes 30 Under 30, is staying put in the town where he's the new big fish. He stares up at a brick building of the University of Waterloo, his alma mater, one hand keeping warm in the –10°C cold by holding a cup of coffee, the other stuffed into a light puffer jacket pulled over a black hoodie (a purple T-shirt, jeans and white tennis shoes that defy the slush puddles complete the ensemble). The Soviet-style block once belonged to his ex-employer, BlackBerry. Two years ago the struggling company sold off 2.8 million square feet of empty office space. Five of the 16 buildings went to the university.

Livingston doesn't want Kik to end up like BlackBerry. The pride of Waterloo and Canada peaked in 2009, when it dominated smartphone sales, before spiraling into insignificance as the iPhone and Samsung swallowed up the market. The CEOs who ran BlackBerry let their egos blind them to their platform's eroding base. Livingston doesn't want ego to get in his way: He refuses to pose for photos and has banned his staff from doing the same. FORBES' photographer has to dart around Livingston, snapping shots whenever he happens to look in her direction. "Kik could disappear tomorrow, and I wouldn't change my lifestyle," Livingston says. "I keep low expectations."

Kik's offices are in the same single-story block of shops where it started, tucked behind a tax accounting firm and a massage clinic. Livingston doesn't want millions of square feet of office space he might one day be forced to sell. He also doesn't want to think about anything but the job ahead. Standing at 6-foot-2, he wears the same outfit every day and has for years to save time in the mornings. He's got 40 purple T-shirts at home, drives a three-year-old Subaru and lives in an unassuming high-rise apartment next to the Bauer Kitchen with his wife, who's 28.

Livingston upholds these quirks partly out of guilt. He was brought up the middle of four boys an hour's drive away in Toronto. His father was a financier on Bay Street (Canada's Wall Street), and his mother was an artist who got an M.B.A. In the midst of his high-achieving family was youngest brother Jack, born with cerebral palsy and unable to walk or talk when he died at the age of 19 in 2013. "We had a one-in-four chance that we would have been Jack," he says of himself and his brothers. "When you look at that, you feel guilty. Like, why did Jack get the hand he was dealt?" The question doesn't eat away at him, Livingston insists. "It's a productive guilt. It's a driver."

The realization hit Livingston while studying at the University of Waterloo, Canada's MIT. Then he got an internship at BlackBerry managing a team of people ten years older than he and was about to take on a coveted permanent job at the high-flying company in late 2008 when his manager, Sanjay Kalyanasundaram, took him aside at a bar one night and told him BlackBerry was in trouble. "You should start your own company. Don't be one of these product managers trying to compete for budget." Livingston believed him. He dropped out of college six months before graduating, having joined the brand-new VeloCity incubator on campus with 60 other college kids. One earlier member was Eric Migicovsky, the founder of the Pebble smartwatch.

"That's my room," he whispers, as he walks through the corridors of the dorm-workspace (what friends back then dubbed the dorkubator) for the first time in six years. A small brass plate on the wall next to the door proudly reads, "Ted Livingston, Room 213, 2009." "That's a little weird," he says.

Kik started out as a music player for BlackBerry, but Livingston split off that app's chat feature into a free texting app in April 2010, when BlackBerry refused to make its own BBM chat app work on other platforms like Apple's iOS and Google's Android. Within three weeks in October 2010 Kik Messenger was downloaded more than 2 million times, topping the charts for all platforms. Steve Jobs was apparently an early user, under the screen name "sjobs."

Disaster struck a month later. BlackBerry sued Kik for copyright infringement, insinuating that Livingston had stolen ideas from BBM. Livingston claims an associate was in the room when Jim Balsillie, BlackBerry's then co-CEO, told his legal counsel to "crush" Kik. BlackBerry disabled the app on its servers and all

"We were the first WhatsApp, and that all got taken away."

at once one-third of Kik's users were gone, followed by almost all the rest due to network effects. "So what does everybody do? They go on WhatsApp!" Livingston cries, visibly seething as he drives his Subaru through the snowy streets, away from the dorkubator. "We were the first WhatsApp, and that all got taken away."

Though Kik settled with BlackBerry in 2013 and went on to amass more than 275 million registered users worldwide, the lawsuit still stings. "We never went back on BlackBerry," he says. When his old bosses tried to invite Kik back onto BlackBerry's app store to help promote their ill-fated BB10 operating system, he declined. "Sorry, we're not building for you, for the same reason Instagram isn't," he told the company. "You're not relevant anymore."

Livingston is avoiding irrelevance by making radical bets on future trends, hence his work on chat bots and his partnership with WeChat, which he instigated. In early 2015 he made a list of 20 tech companies that Kik could sell a slice of equity to, and Tencent was at the top. But being a pioneer doesn't make you a winner. "[Kik] is going to have to work really hard to compete with the bigger players like Facebook," says Jason Mander, senior analyst at social media research firm GlobalWebIndex, pointing to the critical-mass problem. "You can introduce all the cool features in the world, but it's difficult when all your friends aren't using them." Case in point: Ello was a new social network that went viral last year for being ad-free, then flamed out when nobody could be bothered to make it their permanent alternative to Facebook.

Livingston concedes that Facebook Messenger has a "gargantuan" user base of 800 million monthly active users (Kik won't release active user numbers). "But this race is just getting started, and underdogs have won in the past," he says. Then he hedges a little: "[Other companies] can stake out meaningful ground in the new world order."

Staying isolated in distant Waterloo could be limiting. In early 2014 Facebook investor Peter Thiel told Livingston he wanted to arrange for him to have lunch with Mark Zuckerberg. Livingston declined and shrugs and smiles as he remembers it now. Zuckerberg is the person he admires most in Silicon Valley, "so maybe I felt intimidated."

Weeks later Zuckerberg met with another hermit-like founder, Jan Koum of globally popular WhatsApp. Then he bought the company for $16 billion. WhatsApp said in January that it would start inviting businesses onto its network. It might not have taken that step without the tutelage of Facebook and David Marcus, the former head of PayPal, who's now helping businesses set up shop on Zuckerberg's two big messaging services.

In this new war between messaging platforms, the big players are drawing battle lines around the fresh new startups building cool and interesting bots. One example is 200 Labs, a San Francisco startup run by 29-year-old Russian developer Dmitry Dumik, whose Storebot for Telegram has directed around 1.5 million people to 30,000 different bots on the platform. Dumik launched the company with a staff of four in July 2015, and just a few months later Google tried to buy it. "Everyone wants to get closer to users," he explains, and with app downloads a dud the next best route is through messaging apps. Once people can store their credit card details on Telegram, for instance, publishers could send exclusive article links to users, which they could read for a nominal fee. And with messaging apps so deeply ingrained in people's address books, there's always the creepy potential for bots to mine data from social connections.

Messaging bots could be a big threat to Google once people start going to them regularly to ask questions about the weather or where to buy a certain shirt. "Google gives you all these results, but they still expect you to do all the work," says Josh Elman, a partner at venture capital firm Greylock who has invested in a messaging app called Operator, which uses bots and humans to connect shoppers with goods they want directly through the app.

The hard part for Kik will be getting us more comfortable with bots. Bots could struggle if they feel too spammy, and there's an unusually high number of spam bots on Kik, often using profile photos of pretty women to try to lure users to click a link to a cam site and enter their credit card details, says Cathal McDaid of mobile-security firm Adaptive Mobile. "The rationale between spam bots and legitimate chat bots isn't that different," he notes. They both want something from you, ultimately. People may grudgingly accept bots as they evolve, but it will take lots of experimenting to see what works, at the risk of putting people off. "Like the first websites on the Internet, with their ugly colors," says Livingston. "I think bots are going to be the same way." Scan the code, pay with your thumbprint and a waitress appears with your drinks. "I'm, like, controlling the world by chatting to it?" he says, grinning. "It's so simple, it's magical." F

MOVING SAGA

JOE SHOEN GRABBED CONTROL OF U-HAUL FROM HIS FATHER, ESCALATING A FAMILY FEUD INTO ALL-OUT CIVIL WAR. TWENTY-FIVE YEARS' WORTH OF LAWSUITS, CHARACTER ASSASSINATIONS, MURDER ACCUSATIONS AND A SUICIDE LATER, THE FAMILY IS SHATTERED, BUT U-HAUL IS THRIVING AND JOE IS NOW A BILLIONAIRE AND FIRMLY IN THE DRIVER'S SEAT.

BY LUISA KROLL AND ALEX MORRELL

Dressed in black pants and a black U-Haul shirt, Joe Shoen, 66, is sitting in a conference room in the middle of a meeting. His cellphone buzzes. Brenda, a customer moving from Michigan to Florida, is furious about a U-Haul phone operator who hung up on her. Shoen scribbles some notes and apologizes. He directs her to the location finder on uhaul.com, where she can look up climate-controlled self-storage locations. Later he calls Mike Kinealy, vice president of sales and customer service, and tells him to follow up. Using Brenda's phone number, Kinealy and the local manager identify and reach out to the employee to discuss her actions.

The longtime CEO of U-Haul's parent company, Amerco, Shoen has personally responded to such calls—on average three a day, but sometimes dozens in hours—since he gave out his cellphone number on the TV show *Inside Edition* in February 2008. He did so in response to allegations about the poor safety conditions of U-Haul trailers: There were dozens of sway-related accidents in a decade. Shoen believed they could have been avoided if U-Haul employees had properly informed customers. "People can't get this organization to behave. I can," Shoen said at the time.

Most CEOs would have had their assistant set up another line minutes after the show aired. Not Shoen. Not only did he not change his number, but eight years later he still claims to respond to every call—although sometimes via e-mail or text—and now insists that all U-Haul general managers post their cellphone numbers in their stores and on the perimeter gates and print them on their business cards. (Don't believe us? Call him at 602-390-6525.) He credits the direct line with such innovations as a box designed for flat-screen televisions, 24/7 access to

ROBERT GALLAGHER FOR FORBES

Undeterred by his battle wounds, Joe Shoen (center) still believes in family business and is entrusting U-Haul's future to his sons Sam (red shirt) and Stuart (white shirt), both top executives at the company.

U-Haul's storage units and printed instructions for customers on how to safely connect and disconnect trailers.

Frankly, a few calls from enraged customers in the middle of the night are nothing compared with what Shoen has already endured for this company. His family and U-Haul—which his father, Leonard Samuel (a.k.a. "L.S."), and mother, Anna Mary, founded in 1945—have been at the center of one of the messiest family feuds in American history. Having lost faith in his father's ability to run the business, Joe wrested away control of Amerco in 1986, unleashing a torrent of litigation and reputational warfare; L.S. later accused Joe and his younger brother Mark of being involved in the murder of their sister-in-law. L.S. told FORBES in 1994 that Joe was mentally ill. Others insisted that L.S. was manic-depressive; he killed himself in 1999. There were allegations of financial shenanigans, which were followed by a bankruptcy filing. U-Haul only recently escaped from the quagmire of family infighting, settling the last of the litigation in 2012.

All of the distractions should have driven U-Haul into the ground. And they nearly did, hindering the company's ability to borrow money, attract talent and forge partnerships. But Joe held firmly on to control and kept U-Haul alive by concentrating on the mundane, day-to-day details of its core self-moving business.

"[Joe] manages in an interesting way. I would characterize that as 'Keep your head down and focus on the customer.' We're in the world of celebrity CEOs and celebrity executives, and Joe's not out there pounding his chest," says Amy Hillman, a dean and professor of strategy at Arizona State University's business school, who has written a case study on the company.

Quite the opposite. Still scarred by the dozens of TV shows, books and newspaper articles chronicling his family's murder saga, Shoen wants almost no attention. He rarely speaks to the press. He is also not receptive to Wall Street, usually refusing to speak to investors or analysts. The company participates in just one investment conference a year, and only two analysts cover the over $6 billion (market cap) firm.

IN 1957 ANNA MARY DIED AT AGE 34, LEAVING BEHIND SIX CHILDREN UNDER AGE 13, EACH OF WHOM INHERITED A PIECE OF THE COMPANY.

But it's an extraordinary story. Thanks to Joe's unwavering focus, U-Haul has steadily expanded its dominance in the self-moving business. As of fiscal year 2015 (calculated from March to March) it had 135,000 trucks and 107,000 trailers on the road, 17,000 more than the year prior. Rival Avis Budget last reported 22,000 truck rentals in 2014, down 5,000 from the previous two years. Penske rents out approximately 15,000 trucks on a local or one-way basis, plus another 25,000 commercial trucks on a local basis.

Since the family finally settled the last of its lawsuits in August 2012, Amerco, which also has a growing self-storage business and a small insurance outfit, has achieved record sales of $3.1 billion (the majority of it, some $2.2 billion, from its core move-it-yourself business) and earnings of $357 million, up 23% and 74%, respectively, since FY 2012. For the first nine months of FY 2016 revenues increased by 6.6%, a bit lower than its five-year average of 9%, while net earnings have risen 26%. Amerco is in the top 5% of Nasdaq's best-performing stocks, with its shares up 255% in value since the settlement, to a recent $333—despite the fact that they have stumbled 24% from their late-November peak.

"A weight had been lifted off everyone in the organization. It was an unbelievable relief," recalls Shoen, who, thanks to his 17.6% stake and the stock's performance, now has a fortune of nearly $1.2 billion. Still Shoen is never at ease. "To me it seems [business] is more difficult every morning," he says. "As we grow we have to con-


L.S. Shoen

THE LONG AND WINDING ROAD

FEB. 29, 1916

L.S. Shoen is born in Minnesota; his father, Sam, was a former boxer and semiprofessional baseball player.

1937

L.S. enrolls at Oregon State. He gives haircuts in his dorm room to earn money. **With a friend, L.S. opens a barbershop near campus, which leads to a chain of shops.** He pays for college and eventually matriculates to the University of Oregon's School of Medicine. The attack on Pearl Harbor shuts down the business as most of his barbers enlist. Not L.S., who was in the Navy's V-12 program, which permitted men to finish schooling before becoming Naval officers.

tinue to be sharp. We have to continue to be careful."

U-HAUL WAS CONCEIVED by L.S. Shoen and his wife, Anna Mary. The two met in Portland, Ore. in 1943. L.S. was studying to become a medical doctor at the University of Oregon while Anna Mary Carty was a student at nearby Marylhurst University. Then, at age 27, L.S., who had earned the nickname "Slick" in med school for hatching moneymaking plans, got kicked out a year shy of graduation for covering for an absent friend during roll call.

No longer in school, he was quickly eligible for action in World War II. Before heading off to boot camp, he married Anna Mary. But he never made it onto the battlefields because of his own fight against disease. He caught scarlet fever while training in Idaho, then rheumatic fever while in Seattle. The Navy eventually sent him to Corona, Calif. (just east of Anaheim) to recover until he was discharged in 1945.

By then the couple had a 4-month-old son, Sam, and, according to company lore, they tried to rent a trailer to move their stuff back to Portland but had no luck. On the long drive home the pair dreamed up the name U-Haul and formulated a rough plan. The couple moved onto Anna Mary's family ranch an hour from Portland and began pouring their life savings of about $5,000 (around $65,000 in today's dollars) into launching the company. L.S. originally purchased used trailers, but they broke down often and repairs were expensive. So he taught himself how to weld and began building his own. Then he traveled around, persuading gas station owners to let them rent the trailers from their property in return for commissions: 25% for one-way rentals and 40% for local ones.

The postwar baby boom was an ideal time for the business. Economic prosperity—and the birth of the Eisenhower Interstate Highway System—sparked the growth of the suburbs and unparalleled migration by American families. U-Haul's nationwide, one-way trailer rentals became an indispensable tool, and "U-Haul" entered the lexicon in the same way Xerox would (later) for photocopies and Google would (much later) for search.

It was generally smooth driving until 1957, when Anna Mary, who had a congenital heart defect, died at age 34. At the time the couple had six children under the age of 13, and each child inherited a piece of their mother's 50% stake in the company, which by then had $6 million in sales (roughly $50 million in 2015 dollars) from 22,000 trailers. Ultimately her death not only shifted ownership to the kids but also shattered the family.

A year later L.S., who was often on the road, married Suzanne Gilbaugh, the much younger daughter of his neighbors, and sent his two eldest sons, Sam and Mike, then 12 and 10, to boarding school in California right after the wedding. The next eldest, Joe, 8, and Mark, 6, stayed at home in Oregon, where they formed a lasting bond. Over the course of that marriage L.S. had five more children and moved the family to Palm Springs, Calif. and then to Phoenix, where U-Haul remains headquartered. The couple divorced after 20 years, and L.S. married four more times, twice to the same woman. Shoen gifted shares to all his children over the years and owned none at the time of his suicide.

The wheels started to fall off the business in the 1970s during the oil crisis. Most of U-Haul's dealers were set up in partnership with local gas stations, which started going under

1944
Soon after being kicked out of medical school and just before joining the Navy, **L.S. marries Anna Mary Carty, his sister's college roommate, whom he started dating a year earlier.** Anna Mary grew up on a prosperous ranch in Ridgefield, Wash. Her mother had served as Oregon's first female postmistress. Her father, Bill, was a farmer and state representative.


Anna Mary and L.S. Shoen

1945
L.S.' military stint is cut short after he contracts scarlet and then rheumatic fevers. **While recuperating in California, L.S. has the idea for one-way trailers.** The couple soon moves to his wife's family ranch almost an hour outside Portland, Ore., where they found U-Haul.

1956
U-Haul is on the move, overhauling the look of its trucks and trailers and painting them orange and white. The company sets up five regions with their own directors and introduces a roadside-assistance service. The next year Anna Mary dies at age 34, leaving behind six children under age 13, all of whom inherit a piece of the company. **1969** Amerco is incorporated in Nevada as a holding company for U-Haul businesses. L.S. acquires Oxford Life Insurance to provide cost-effective health and life insurance to employees. Four years later **U-Haul starts selling liability insurance to its customers.**

at an alarming clip when they ran out of gas to sell. Many of those that survived shifted to self-service and no longer had the staff to rent U-Haul's trucks and trailers. In response L.S. bought up nearly 1,000 buildings in 1975, many of them cast-off Chrysler dealerships, and began opening company-owned locations. It upended U-Haul's business model and added lots of costs, both in property purchases and in hiring full-time employees.

It was also the decade that several of Shoen's children joined U-Haul as executives; many had worked for the company part-time over the years and were pressured by their father to join the ranks. Joe came on board in 1973, immediately after graduating from Harvard Business School, where he'd written a paper on the economics of the self-storage business. Around the same time Joe's older brother Sam quit his medical career to come help, and Michael, a lawyer, gave up his practice to join U-Haul.

Tensions mounted as the brothers jockeyed for position and disagreed about the best direction for the business. Doc Sam, as he was nicknamed (even after picking up a Harvard M.B.A.), largely supported L.S.' efforts and was seen as Dad's top choice for successor.

Joe, on the other hand, was fairly obstinate that the company was not moving in the right way. He wanted U-Haul to get back to the basics of renting trucks and trailers. He also didn't like working in the shadow of his big brother. So he quit in 1978, went to law school at Arizona State and one year later opened Space Age Auto Paint, selling paint for cars, boats and airplanes. (He still owns the business today; U-Haul is a customer.) With his brother Mark (part of the faction who stayed at home in Oregon) he also opened a printing outfit next door called Form Builders Inc. (F.B.I.), whose main customer was U-Haul.

While Mark and Joe tended to their ventures, L.S. began casting about for new revenue streams, setting up U-Haul centers where people could rent all sorts of items—from motor homes and floor sanders to Jet Skis and party supplies like dance floors, awnings and punch bowls. As U-Haul lost focus, its finances unraveled; net profits sank to $9.2 million in 1986 and $2.2 million a year later, down from $42 million two years earlier, and debt ballooned to nearly $600 million. Thousands of employees lost their jobs.

Worried that his father was wrecking the company, Joe led a coup in 1986, forcing L.S., then 70, into retirement. His father conceded the chairman's post to Joe as long as Doc Sam, L.S.' longtime ally, stayed on as CEO. L.S. even threw himself a retirement party.

But things turned sour quickly, and Sam quit in less than a year, unable to get along with Joe. Then Sam and L.S. reached out to Bear Stearns to explore options that would give the shareholders some liquidity. At that point they had just enough votes to carry out their plan. Joe was furious, viewing their move as a hostile takeover. He countered, persuading the board to issue 8,099 shares on favorable terms to five key executives, tilting voting power to his faction. In response Sam and L.S. took U-Haul

FAR LEFT: EVERETT COLLECTION/NEWSCOM

1973
The oil crisis strikes, forcing thousands of gas stations to close and costing U-Haul a lot of business. **L.S.' son Joe, a recently minted Harvard M.B.A., joins full-time.** Around this time father asks Joe's older brothers, Sam and Michael, to quit their jobs (one is a doctor, the other a lawyer) and come help. In 1974 it opens its first U-Haul Moving Center and enters the storage business.

1981
Joe opens Space Age Auto Paint. He still owns the business today, which sold $300,000 worth of paint to U-Haul last fiscal year.

1985
L.S., apparently feeling his children were not taking enough interest in the company, kicks seven of them off Amerco's board, despite the fact that the kids hold most of the voting power. In November 1986, as U-Haul's financials worsen, **a number of siblings band together and use their shares to force L.S. into retirement.** "He had to retire and be run off simultaneously," Joe told FORBES in 1987.

AUG. 6, 1990
Sam Shoen's wife, Eva, is murdered. **Her young daughter, Bente, finds her mother's body at the top of the stairs at their home in the tony ski town of Telluride, Colo.** She, her brother and a friend were all in the house at the time of the murder. So, too, were the family's dogs. Sam was in Phoenix on a business trip. L.S. and Sam offer a $250,000 reward and, convinced that his sons Joe and Mark had a role in the killing, gets the tabloid TV show *Unsolved Mysteries* to feature it. The coverage leads to the arrest and conviction. of Frank Marquis, an ex-con and serial rapist. Joe and Mark sue for defamation, but the case is eventually dismissed.


Eva Shoen

to court in 1988 to challenge the maneuver and seek damages. Joe retaliated by canceling his father's lifetime employment agreement.

Then it got much worse. Sam's wife, Eva, was found murdered in their Telluride, Colo. home on Aug. 6, 1990, with a gunshot wound to her back. L.S. and Sam were convinced that Sam was the intended target—and that it was a hit job orchestrated by Joe and Mark.

Certain of his sons' involvement, L.S., with Sam, offered a $250,000 reward to find the killers and pushed to have the saga aired on *Unsolved Mysteries,* which it was in December 1992. While L.S. was trying to prove his sons were killers, the show actually helped authorities find the real culprit, a serial-rapist ex-con named Frank Marquis, who had confessed to his own brother-in-law. In exchange for providing evidence that he had not been hired to kill Eva, Marquis was given a plea deal in 1994 to serve 24 years for reckless manslaughter and second-degree burglary. He was paroled from the Penitentiary of New Mexico in Santa Fe in 2011.

CERTAIN OF HIS SONS' INVOLVEMENT IN THE MURDER, L.S. OFFERED A $250,000 REWARD.

Despite the conviction, Sam still doesn't believe Marquis was the culprit, or at least the only one: "I don't believe Marquis did it. And if he did, he certainly wasn't alone." Joe and Mark insist they were not involved in any way. The sheriff on the case, Bill Masters, also dismisses Sam's theory. "There's no doubt in my mind that Frank Marquis murdered her and was acting alone," Masters says.

Joe may have had nothing to do with the murder, but he was found guilty of breaking another law. In 1994 a jury found that, by issuing new shares, the board of directors breached their fiduciary duty by preventing the plaintiffs from gaining control. It ordered them to pay nearly $1.5 billion. On top of that, Joe had to pay an additional $70 million in punitive damages.

"We were a tad surprised at that [verdict]," recalls Joe. The next year a judge reduced the damages to $462 million overall (and $7 million for Joe personally) but determined that it had to be paid in cash.

Coming up with that much cash seemed an impossible task. Five board members who were held personally liable filed for bankruptcy (a sixth, Joe's youngest full brother, Paul, who was no longer on the board, worked out a separate agreement). Amerco, which had indemnified the directors, was now responsible. Since its assets were already being used as collateral for a general line of credit to run the business, it was forced to sell millions of dollars' worth of assets.

Enter Joe's closest sibling, Mark, who joined Amerco's board in 1990, after the coup, and therefore couldn't be held liable. Mark bought a bunch of the assets U-Haul was forced to sell. He then borrowed against them and immediately remitted the cash to the company. Between 1994 and 2002 Amerco sold 230 self-storage properties for $600 million in cash and debt to a special-purpose entity called SAC Holdings, of which Mark is the main owner. The move gave it cash and also let it collect fees for managing the properties. Today he owns more than 400 self-storage properties that U-Haul still manages. These assets are worth an estimated $3.3 billion, more than double the value of his 19.5% stake in U-Haul, which itself is worth $1.2 billion.

The financial maneuverings were clever, but were they legal? In the wake of Enron, PricewaterhouseCoopers recommended that it consolidate SAC on its financial statements going back to 1995. That pushed up its debt levels to $900 million, made it difficult to renew credit lines and put it in danger of losing its Nasdaq listing. In the middle of it all brother Paul, the youngest of L.S. and first wife Anna Mary's six children, sued, alleging inappropriate dealings with SAC, including the transfer of $200 million. U-Haul filed Chapter 11 bankruptcy in June 2003 and emerged the next year. Meanwhile, the legal case dragged

1994

Amerco, U-Haul's parent company, whose sales topped $1 billion for the first time the previous year, goes public on Nasdaq at $15.83 a share on a split-adjusted basis. The IPO comes one month after a jury rules that U-Haul and its board owe Sam and other plaintiffs $1.47 billion. A judge later cuts it down to $462 million.

2002

Amerco's longtime auditor PwC tells the company to restate its financials, pushing $900 million of debt onto the balance sheet. It defaults on $100 million. **Brother Paul sues its off-the-books entity SAC Holdings, alleging that his brothers Joe, James and Mark binged on Amerco's assets, using the same financial instrument infamously used by Enron.** In June 2003 U-Haul files for bankruptcy. It emerges nine months later.

FEB. 27, 2008

Joe Shoen goes on *Inside Edition* to defend the company's role in dozens of sway-related accidents over a decade involving its single-trailer model. The company eventually pays millions in settlements.

2010

Seeing an opportunity to reach younger customers, **U-Haul buys Collegeboxes,** which had its origins as a Duke University class project. Collegeboxes says it's now the largest student summer storage and shipping provider in the country, delivering boxes to dozens of schools and storing belongings over summer breaks.

Source: A Noble Function: How U-Haul Moved America.

on. It was dismissed with prejudice in 2012, with Paul and the others forced to sell their Amerco shares and forbidden by the Nevada court from holding shares for 20 years.

IT'S HARD TO IMAGINE running a business amid all this turmoil, but that's just what Joe had to do. So he retreated into the work. From 1987 to 1996 he jettisoned noncore businesses and spent $2.8 billion in capital expenditures, buying 80,000 new trucks and lowering the fleet's average age from 11 years to 5.

Even at the rockiest times Joe kept his ear to the road. As a young teen he would climb aboard his dad's single-prop Cessna 182 to accompany him to different locations. He later took his own kids, Sam and Stuart, now both executives at U-Haul, on similar trips. "If not, we'd have had an absentee dad," says Stuart, executive vice president of U-Haul International. "Traveling with my dad taught me everything I learned. It really is his passion."

These days Shoen spends roughly every other week visiting some of U-Haul's dealers. He typically starts early on a Monday morning and works until 9 most nights, visiting as many as 17 states in a week. He flies in the company plane to get to more locations more quickly, but the frills stop there. He has a policy of two people per motel room and insists they stay at inexpensive chains like Red Roof Inn and La Quinta. Room service is verboten. He eats most of his meals at McDonald's. Joe's cheapness is the stuff of company lore. On one trip he and four of his employees showed up at a motel. Despite the fact they'd booked three rooms with two double beds, there were only five rooms, with one king-size bed apiece. Even though it was after midnight, Joe insisted on finding a different motel.

"He's boots on the ground. That's how he knows what's going on. He's always in our field operations, learning, listening, watching, doing," says Bob Wesson, a longtime U-Haul exec. At each location Shoen prints out a P&L statement and asks the manager what Shoen can do to make the business better. He jots down ideas on a pad, then snaps a photo of his notes with his phone to text to his assistant, who then often turns it into a memo to the employees. He also spends a lot of time scouting for self-storage locations, a growing part of the business, generating $211 million in sales in 2015. U-Haul not only manages 481 of them for SAC Holdings and others (owned mostly by Mark) but also owns 799 in all 50 states. Most of the facilities are conversions or adaptations of landmark buildings like the Wonder Bread bakery in Jamaica, Queens.

"IT'S AN EXAMPLE OF A COMPANY THAT FOCUSES ON ONE THING AND OVER THE DECADES HAS GOTTEN VERY GOOD AT IT."

U-Haul is a sprawling operation to keep tabs on. It now operates and manages 1,600 locations, but another 18,200 are independent dealers, run out of self-storage centers, gas stations, convenience stores, auto repair shops and even lumber stores. Thanks to a comprehensive plan that Shoen put into place to attract more small businesses, 2,700 new partners have signed on since 2012. Not to be confused with franchisees, these dealers simply let U-Haul park its trailers and trucks in their parking lots and rent the vehicles out for, on average, a 21% commission. It's a throwback to L.S.' old arrangement with gas station owners in the 1950s. To service these dealers and their customers U-Haul now has close to 15,000 vendors, including towing companies and mechanics, throughout North America that can be called if a customer's rental breaks down. That is a huge jump from 2,500 in 2012. The number of staffers, both full- and part-time, increased by 7,700 in that time.

At this point it's not just about beating rivals. "The competitive moat enjoyed by this company is significant and has myriad competitive advantages it enjoys," says Jim Barrett, an analyst for CL King & Associates who has followed the company for nine years. "It's an example of a company that focuses on one thing and over the decades has gotten very good at it. Its real competitor is the consumer who borrows the van next door and moves themselves."

Shoen has a few plans to woo these customers, too. In 2010 the company bought Collegeboxes, which was founded at Duke University (it's now headquartered in Phoenix) and specializes in shipping students' belongings to their dorms. It also set up movinghelp.com, an online marketplace that connects customers to laborers who can help them move, and created a U-Box program, in which the company drops off and picks up storage containers for customers who don't want to rent and drive their own trailers. (It initially called them pods but stopped doing so after PODS Enterprises sued for trademark infringement and a jury awarded PODS $64 million.)

U-Haul is well positioned to grow for decades to come, but it's come at a huge human cost. Joe, for instance, speaks to only two of his siblings. But he has no interest in mending fences and expresses no regrets at how things unfolded. "I don't think that the break in the family caused [U-Haul's] success. I think it could have caused the failure of U-Haul," says Joe, who is remarried and has three younger children. "So of course I would rather that we would not have discord in the family, but the result we have achieved is much more in keeping with the ethics and values that my father attempted to pass on." F

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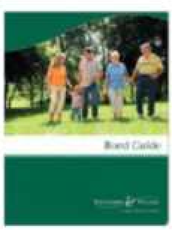

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Potential Regular Predictable Income

Municipal bonds typically pay interest every six months unless they get called or default. That means that you can count on a regular, predictable income stream. Because most bonds have call options, which means you get your principal back before the maturity date, subsequent municipal bonds you purchase can earn more or less interest than the called bond. According to Moody's 2012 research,* default rates are historically low for the rated investment-grade bonds favored by Hennion & Walsh.

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The Road Chief Rides Again

Feather-light and ultracool, the classic Bowlus trailer is rolling after 80 years, thanks to the drive of a father and daughter.

BY MARK EWING

After earning an undergraduate degree in economics at Wharton and a master's in finance at the International University of Monaco, Geneva Long knew she had the entrepreneur's itch—she dreamed of updating and relaunching forgotten brands. "I grew up watching my parents passionately build their company," says the 25-year-old Long. "No matter the pivots or missteps, they made working look like the most fun you could have."

Her parents, John Long and Helena Mitchell, had pioneered Internet banking systems two decades ago. "In 1999 Helena and I sold Quadravision after growing it for seven years to over 400 employees serving financial institutions with Internet solutions in the U.S., Canada and Europe," explains John Long.

He spent his first years of early retirement restoring a 1935 Bowlus Road Chief travel trailer for road tripping with his vintage 1937 Tatra, which he showed at the Pebble Beach Concours d'Elegance in 2011. "The positive reactions at the Palm Springs Modernism Show and by attendees at SXSW in 2010 encouraged the decision to rejuvenate the brand," he says.

"Bowlus Road Chief was actually a true zombie trademark," adds Geneva. "It was never registered nor was it ever held by another party, so securing it was much easier than we anticipated."

Developed by Hawley Bowlus in the years after he led construction of Charles Lindbergh's *Spirit of St. Louis*, the Bowlus Road Chief was 80 years ahead of its time. Bowlus, a world leader in the design of sailplanes and gliders who also worked on the early development of the Learjet, brought the engineering and design principles of aircraft and race cars to the travel trailer: a light weight, a low center of gravity, stable aerodynamics and not a square inch gone to waste. The original Bowlus remains a marvel of efficient packaging and Streamline Moderne design. The iconic Airstream trailer owes its very existence to the Road Chief. (The Airstream company was founded by former Bowlus marketer Wally Byam.) And original Road Chiefs still have tremendous cachet: A 1935 Bowlus went for $187,000 at the Gooding & Co. Scottsdale auction in 2011.

The Longs have brought the Bowlus brand into the 21st century since relaunching it in 2014. Ten Road Chiefs were delivered in the past year, and 25 are under construction, cash deposits already banked. Prices range from $115,000 for the simpler Heritage Edition that sleeps three to the $140,000 Open Road Edition, which can accommodate four. Inside, ceilings and paneling are maple veneer on birch core, and owners can choose from a range of color themes and special equipment.

"We gave a great deal of consideration to how people work and play today," says John. "That's why we offer tablet and laptop charging on the go with a cellular amplifier so you can catch up effortlessly with work or stream all your favorites. We added solar-panel hookups with an easy storage option and long-life AGM batteries so you can travel where and how you want. We want our customers to fol-

Ride and shine: Geneva Long and her father, John, bought the zombie trademark for the iconic Bowlus trailer—a precursor to the Airstream—and breathed new life into the brand.

low their dreams with as little to encumber them as possible.

"The vintage Road Chief served as our style icon and design DNA," he continues. "While we elongated the new Road Chief to 24 feet, widened it to 80 inches and grew the overall internal height to 6 feet 4 inches, we kept the original aircraft quality of 2024-T3 aluminum along with 5,000 aircraft-grade rivets to create an ultrastrong monocoque [French for "one hull"] lightweight structure akin to an airplane wing or fuselage."

Overall, the Road Chief tips the scales at a featherweight 2,300 pounds, less than half the weight of a comparable-length trailer. Due to its superior aerodynamics and low center of gravity, just about any SUV or crossover, and even some luxury sedans, can tow it. As John explains: "This appeals to many users who don't want to add a new vehicle just to tow their travel trailer."

Geneva, for instance, regularly pulls her Road Chief behind a V6-powered 2011 Porsche Panamera, and Helena does the same with her beloved Saab convertible.

Texas cardiothoracic surgeon Staton Awtrey and his wife, Blythe, exemplify the new Bowlus owner. They traded their 27-foot Airstream and requisite huge tow vehicle for a Mercedes SUV and a Road Chief. Blythe and their 5-year-old daughter, Lillian, keep logbooks of their travels so Lillian can replicate them one day with her own children in the very same Road Chief, which Staton named *Spirit of Adventure*, because it resembles the airship in Lillian's favorite movie, *Up*.

"The Bowlus Road Chief captures imaginations," John Long says. "It encourages people to wonder what's next." ✱

FINAL THOUGHT

✱ *"He who would travel happily must travel light."* —**ANTOINE DE SAINT-EXUPERY**

TRENDING

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COMPANY

MARATHON LAUNDRY

Founded by former Apple executive Glenn Reid, Marathon seeks to be the Tesla of home appliances with a single-tank washer-dryer that has network connectivity for maintenance and oversight.

IDEA

HYPERSONIC TRAVEL

Industrial designers Charles Bombardier and Abhishek Roy unveiled plans for a private business jet (known as the Antipode) that travels over 18,000 miles per hour—or New York to London in 11 minutes.

I Hate Annuities…and So Should You!

The Soothing Sound Of Guaranteed Income

Many *Forbes'* investors currently own or are considering annuities. After all, they are sold as safe investments, offering dependable and predictable returns, no matter what the market does. And that sounds very appealing, especially after suffering through the worst bear market since the Great Depression. So what's the problem with annuities?

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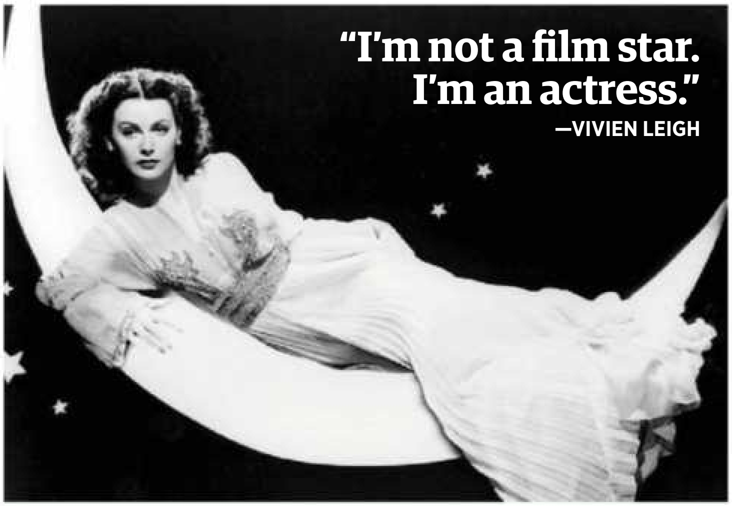


"I'm not a film star. I'm an actress."
—VIVIEN LEIGH

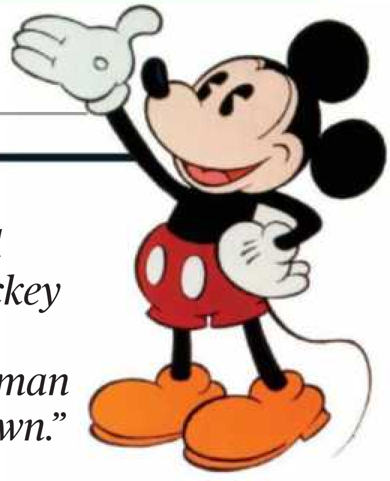
"PEOPLE HAVE BEEN MODELING THEIR LIVES AFTER FILMS FOR YEARS, BUT THE MEDIUM IS SOMEHOW UNSUITED TO MORAL LESSONS, CAUTIONARY TALES OR POLEMICS OF ANY KIND."
—RENATA ADLER

"WE HAVE OUR FACTORY, WHICH IS CALLED A STAGE. WE MAKE A PRODUCT, WE COLOR IT, WE TITLE IT AND WE SHIP IT OUT IN CANS."
—CARY GRANT

"There are two things that can absolutely not be carried to the screen: the realistic presentation of the sexual act and praying to God."
—ORSON WELLES

"All I need to make a comedy is a park, a policeman and a pretty girl."
—CHARLIE CHAPLIN

"Cinema is life with the dull bits cut out."
—ALFRED HITCHCOCK



"Girls bored me–they still do. I love Mickey Mouse more than any woman I've ever known."
—WALT DISNEY

"To hell with the cost. If it's a sound story, we'll make a picture of it."
—SAMUEL GOLDWYN

"Outside are the dogs, those who practice magic arts ... everyone who loves and practices falsehood."
—REVELATION 22:15

"IF THE BOY AND GIRL WALK OFF INTO THE SUNSET HAND-IN-HAND IN THE LAST SCENE, IT ADDS $10 MILLION TO THE BOX OFFICE."
—GEORGE LUCAS

"THERE ARE ONLY THREE AGES FOR WOMEN IN HOLLYWOOD: BABE, DISTRICT ATTORNEY AND DRIVING MISS DAISY."
—GOLDIE HAWN

"Film is not the art of scholars, but of illiterates."
—WERNER HERZOG

FINAL THOUGHT

"When I was a young teener, Marlene Dietrich was our sultriest, stunningly legged, husky-come-hither-voiced, sexiest goddess."
—MALCOLM FORBES

SOURCES: A YEAR IN THE DARK: A YEAR IN THE LIFE OF A FILM CRITIC, BY RENATA ADLER; THE MOGULS: HOLLYWOOD'S MERCHANTS OF MYTH, BY NORMAN J. ZIEROLD; THE TIMES BOOK OF QUOTATIONS; GOODREADS.COM; CLASSIC FILM GUIDE, BY SIMON ROSE; MY AUTOBIOGRAPHY, BY CHARLIE CHAPLIN.

CLOCKWISE FROM TOP LEFT: INTERPHOTO/ALAMY; MARKA/ALAMY; CHARLES SYKES/INVISION/AP; GETTY IMAGES; RÖHNERT/ULLSTEIN BILD/GETTY IMAGES